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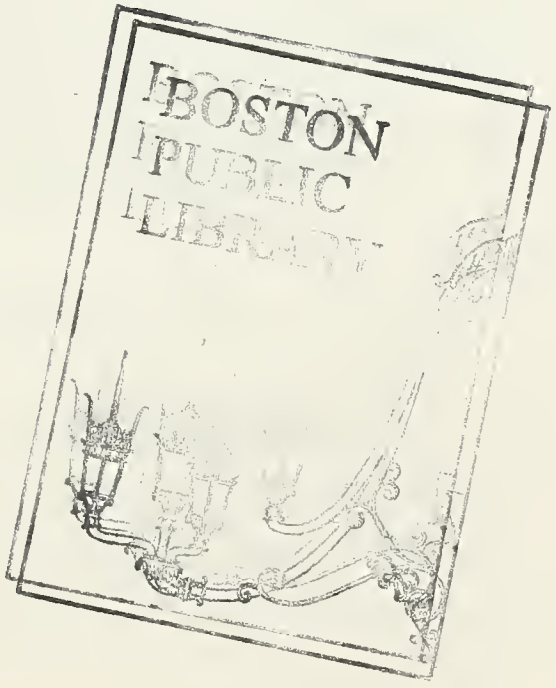
NEW ENGLAND MEDICAL CENTER

Master Plan
1990-2000



Prepared by Master Planning Committee
Draft Submitted July 1989
Final Version March 1990

3/29/90

Errata Sheet

New England Medical Center

Master Plan
1990-2000

1. On page 50, at the end of the second paragraph from the bottom, the following sentence will be added:

   "The Medical Center understands that it needs to work with the BRA to ensure compatibility with Midtown Cultural District objectives."

2. On page 51, in the section on Research, two changes will be made:

   a) In the first paragraph, line 7, the word "minimum" will be changed to "maximum".

   b) At the end of the second paragraph, a sentence will be added as follows:

      "The Medical Center will work with the BRA to evaluate the various alternatives for off-campus research development."

3. On page 67, in the Design Guidelines Chapter, three changes will be made:

   a) in the third paragraph, second line, after the word "routes," the following clause will be inserted:

      "will guarantee handicapped access to all development contemplated under the master plan, and will work cooperatively with the BRA in the development of the pedestrian access plan to provide the fullest handicapped access possible to all existing portions of the campus."

   b) at the end of the third paragraph, the following language will be inserted:

      "or other compatible uses for the ground floor space. Furthermore, the Medical Center will work cooperatively with the BRA to explore the feasibility of making more legible the main entrance to the hospital."

   c) The fourth paragraph will be replaced with the following language:

      "It will be the joint responsibility of the BRA and the Medical Center to work to resolve issues relating to the long-term use of the MBTA portal."

4. On page 70, following the last sentence on the page, the following sentence will be added:

   "The Medical Center will also investigate ways to incorporate existing historic buildings or parts thereof into proposed new construction projects."

5. On page 74, in the second on Transportation annd Parking, two changes will be made:

   a) In the section entitled 'Overview,' fourth paragraph, the following phrase will be eliminated:

      "(by the Fall of 1989)"

   b) Also in the fourth paragraph, after the first sentence, the following sentence will be inserted:

      "The Medical Center understands that review of the Herald Street garage project and review of the overall transportation plan will occur separately from this master plan, and consequently, approval of this, master plan does not signify approval of any transportation and parking plans."

6. On page 77, the last sentence on the page will be eliminated.

WILBUR
NUTRITION
PARKING GARAGE
PARKING
PARCEL C
POSNER
TREMONT STREET
WASHINGTON STREET
WARREN AVENUE
TYLER STREET
TAI TUNG STREET
OAK STREET WEST
OAK STREET
OAK STREET
BAYLE PLACE
JOHNNY COURT
OAK STREET
INPATIENT
ADMINISTRATION
RESEARCH
TUFTS & OTHERS
AMBULATORY
HOUSING

New England Medical Center
Institutional Master Plan: 1989 - 1999
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Planning Process

After more than a year of planning and meeting with community and city representatives, the New England Medical Center (NEMC) is pleased to submit its master plan for the period 1989-1999. The NEMC master plan is the result of cooperative efforts between community residents, Medical Center staff, city officials and Boston Redevelopment Authority staff. This institutional master plan is in accordance with the draft Chinatown zoning, section 40-16.

The community planning process has enabled the Medical Center to plan for future facility needs in concert with the community planning goals. The purpose of the planning process has been to identify the future needs and goals of the Medical Center and the community, to prioritize those needs, and to design physical, economical, and social solutions to achieve these shared goals. The community based planning process permitted the Chinatown residents to articulate their need and concerns for more affordable housing, their concern over the shortage of open space, their desire to enhance and diversify the neighborhood, their concern with traffic on residential streets and a strong desire to preserve the unique culture of Chinatown. Thus, a very important component of this master plan is the community benefits package.

The benefits package included with this master plan has been endorsed by the Subcommittee on NEMC Community Benefits and reviewed by the Chinatown Neighborhood Council. The benefits are organized in keeping with the five categories of the Chinatown Community Plan: 1) community services, 2) housing, 3) land use, 4) business and economic development, and 5) transportation and traffic. All areas will provide significant benefits. In particular, there will be a land transfer to enable the assembling of Parcel C for a community services center, housing creation funds in excess of $600,000 for Phase 1 of the master plan with additional funds generated for later phases, and a broad range of new initiatives and funds for job training.

Ten Year Plan

The master plan sets out a development framework for accomplishing the Medical Center's goals of maintaining and enhancing its role as an innovator and leader in the provision of high quality patient care, education, training and research.

Over the past year of discussion, the general parameters of the master plan have been set to include: total bed capacity of 750, replacement of outmoded inpatient care facilities, new emergency room facilities, additional research capacity, expanded ambulatory care and parking.

The first phase of development will consist of two connected buildings (1-C North and South buildings) along Washington Street north of Oak Street. The total area of these buildings is approximately 250,000 gross s.f. These buildings are designed to conform to draft Chinatown zoning regulations. The 1-C North

building will house a new emergency room, additional medical/surgical beds, intensive care beds, new operating rooms and research space. The 1-C South building will house community-based ambulatory health services: maternity services, a community hospital unit, replacement of outmoded medical/surgical beds and research space. Construction of this phase is expected to begin in 1992 or 1993 and will be completed approximately two years hence. This project could be accelerated if steps were taken to reduce the two-to-three year waiting period for Determination of Need reviews, a process required by the Department of Public Health.

The later phases of development will be located on a site known as the B-Block (bordered by Bennet, Ash and Nassau Streets and Harrison Avenue) and are designed to replace the remaining patient care units that are located in outmoded buildings. Some of the outmoded buildings will then be used to create additional research capacity. Other projects in the master plan include the development of additional parking facilities (expansion of the Herald Street garage, and/or joint development of underground parking on the R3/R3A site), the expansion of ambulatory care facilities utilizing air rights over the Wilbur Theatre, the establishment of a day care center on Tremont street, and ongoing projects to modernize existing buildings.

The NEMC master plan is consistent with other master plans being developed, such as the **Midtown Cultural District Plan, Tufts University**, and the **Chinatown Community Plan**. The heights of proposed buildings, the FAR (floor area ratio), the building uses and the boundaries included in this master plan are consistent with the proposed new zoning regulations for Chinatown. The proposed buildings will form a consistent street edge for both Washington Street and Harrison Avenue. Courtyard areas will be developed to allow for more open space, and the buildings will be arranged in a manner to allow for more light and air exposure.

The plan provides architectural unity between the design of the new and old buildings while allowing increased functionality of the buildings through connecting corridors. Pedestrian walkways from both north-south and east-west are thoroughly addressed in the master plan. Also, the Medical Center recognizes the importance of maintaining the historic structures of Chinatown and the buildings included in the master plan will be designed with this in mind.

Finally, parking and transportation is of great concern to Chinatown residents as well as to the Medical Center. For this reason, the Medical Center has selected a traffic consulting firm to develop transportation access plans for the Medical Center and Chinatown. The housing development teams for R3/R3A will participate in the study. In the meantime, the master plan centers around the efforts to direct institutional traffic away from residential streets (Oak and Harrison Avenue especially) and towards major non-residential thoroughfares (Herald Street, Marginal Road and Washington Street).

Appendices (separate volume)

New England Medical Center Deed
Cooperation Agreements
Payment in Lieu of Tax Agreement
Voluntary Contribution Agreement

1. Community Planning Process

Planning Process

The New England Medical Center master plan is the product of a joint planning effort, involving Chinatown residents, neighborhood business people, social service agencies, city planners, and Medical Center representatives. The shared goal of this diverse group is to plan for a vision of Chinatown as a community of affordable residential opportunities, varied economic activities, and unique cultural resources.

Throughout this community planning process, the challenge has been to identify the future needs and aspirations of the Medical Center and the community, to prioritize those needs, and to design physical, economical, and social solutions to achieve shared goals.

Through the Chinatown Community Plan, residents have articulated a need for more affordable housing, a shortage of public open space, a desire to enhance and diversify neighborhood business activity, a concern about traffic on residential streets, and a strong desire to preserve the unique cultural resources that maintain Chinatown as a focal point for the region's Asian community.

To continue its mission as a major regional center of medical training, education, research, and treatment, the Medical Center must expand its base of services. A commitment was made to do so in a way that would enhance the quality of life for neighborhood residents and business people. As a longstanding member of the Chinatown community, the Medical Center recognizes that its future is linked with the future of its neighborhood. The Chinatown community planning process has enabled the Medical Center to plan its future facilities needs in concert with community planning goals.

Over the past year of discussion, the general parameters of the master plan have been set to include: total bed capacity of 750, replacement of outmoded inpatient care facilities, new emergency room facilities, additional research capacity, expanded ambulatory care facilities, and parking.

The plan also structures important benefits for the Chinatown community. The Medical Center has contributed to improving the quality of life in Chinatown through health care, ESL, job training, and other economic development initiatives. These programs, services, and development activities provide **on-going** benefits to residents and businesses in Chinatown. Many programs will be **enhanced** as a result of the master planning process, by improving the accessibility of these programs to Chinatown residents. In addition, the master plan development program will generate new community benefits in the areas of land use, housing, business and economic development, community services, and transportation. These new benefits consist of unique programs targeted to address the objectives articulated by the Chinatown Community Plan, as well as standard public benefits such as linkage contributions and other public commitments that are required by zoning, but nonetheless would not be available to the community without the proposed development program. Most notably, the

master plan calls for the Medical Center to transfer ownership of the property known as Parcel C to the community. This parcel, which now includes three buildings occupied by the Medical Center and a parking lot, will be available for the creation of a multi-service community center for Chinatown.

All information contained herein is intended to address comprehensively all of the issues delineated in the Institutional Master Plan Section (Section 40-16) of the draft permanent zoning for Chinatown.

Acknowledgements

The Medical Center greatly appreciates the on-going support and commitment of the community members, city officials, and other interested citizens who have been instrumental in the preparation of this master plan. Special thanks to the members of the Chinatown/South Cove Neighborhood Council, under the leadership of its Moderator, Mr. William Moy, who have worked patiently and diligently with the Medical Center throughout this extensive planning process.

George Joe
Chinatown Neighborhood Council

Pancho Chang
South Cove Community Health Center

Chau Ming Lee
Chinese American Civic Association

Frank Chin
Cathay Corner Gifts

David Wong
Sun Sun Company

Dr. Robert Guen
Goon Shee Family Association

Sister Ruth Marie O'Donnell
Maryknoll Sister Center

William Moy
Lea Group

Richard Chin
South Cove YMCA

Peter Bak Fun Wong
Josiah Quincy School

Henry Szeto
Moon Villa Restaurant

Frank Wong
Imperial Teahouse

Peter Jae
Chinatown Boys & Girls Club

Daniel Yee
Chinese Freemasons

Edward Chiang

Lai Young

Neil Chin

Davis Woo
Metropolitan Structures

Joe Chin
China Pearl Restaurant

Lucy Chin
Courtney Florist

Thanks also to the Council's Subcommittee for NEMC Community Benefits, chaired by Ms. Carol Lee, who has worked with us to structure the community benefits that will be generated by the phased development of this master plan. Other individuals and organizations who have helped shape this master plan include the Midtown Cultural District Task Force Subcommittee on Design and Development, the Center City Task Force, and Mr. Paul Chan.

The Medical Center appreciates the commitment of the Flynn Administration in guiding the development of this master plan in concert with new zoning for Chinatown and Midtown. Thanks go to Stephen Coyle, Director of the BRA, and his staff, most notably Ted Chandler, Ting Fuh Yeh, and Ron Fong.

To the Mayor's Office of Neighborhood Services, we extend our appreciation to Don Gillis, Director, and Yon Lee.

Finally, we would like to thank all those who worked with the Planning Office in completing this master planning document. Those individuals include: Ed Tsoi and Lori Ramsey of Tsoi/Kobus & Associates, Andre Wouters of Architectural Design Options, Inc. and Craig Parkhill of MFPA.

Chronology

In May of 1988, the Medical Center presented the BRA with a preliminary master plan which updated its 1982 plan and incorporated several new features. Among them was the designation of half of Parcel C for community service facilities. Meetings with the BRA and the community following the unveiling of the preliminary updated plan led to further changes. Because it became clear that Chinatown badly needed more housing, more housing was proposed by the BRA for the property known as R3/R3A. This made it necessary to move the community services facilities initially planned for R3/R3A to Parcel C, and in turn, devote 100% of Parcel C to a community center. The Medical Center, recognizing the community need, eliminated its plans for development on Parcel C. Highlights of this chronology are as follows:

- Draft conceptual zoning for Chinatown is released during Summer, 1988.
- In response to draft conceptual zoning, the Medical Center presents the draft master plan concepts to the Chinatown/South Cove Neighborhood Council, Summer, 1988.
- A special use permit to renovate and expand two intensive care units is approved by the Chinatown/South Cove Neighborhood Council, BRA Board, and Board of Appeals in November, 1988. This included a contribution of $50,000 from the Medical Center towards the creation of affordable housing in Chinatown.
- The Medical Center Board of Trustees votes to support conveyance of parcel C, November, 1988.
- The Medical Center's draft master plan executive summary is distributed to the community in January, 1989.
- The draft master plan is presented at an open community meeting in February, 1989.
- The draft master plan is presented to the Design and Development Subcommittee of the Midtown Cultural District Task Force in February, 1989.
- The ad hoc subcommittee for NEMC community benefits is established to review the benefits in February, 1989.
- On-going master plan updates at monthly Chinatown/South Cove Neighborhood Council meetings, Fall of 1988 through present.

In one sense, the master plan represents many months of hard work and cooperation by representatives of the community, city, and the Medical Center. In another way, it also represents a point of departure for realizing the potential of new community resources that will be generated by the phased development.

The Medical Center will continue to work with community residents and appropriate city agencies to deliver the public benefits generated by this master plan. In addition, the Medical Center will continue to work with members of the Chinatown/South Cove Neighborhood Council and other community representatives to explore other initiatives and opportunities geared to respond to community needs and values.

2. Background

The Medical Center was established as the Boston Dispensary in 1796 by a group of prominent citizens to assure that the poor people of Boston had access to good health care. It was the third institution in the United States and the first in New England. The opening of the Dispensary marked the beginning of an unbroken tradition at New England Medical Center -- service to the community. The Medical Center has been a member of this community and has occupied its current site for 200 years.

In 1894, the Boston Floating Hospital was founded to care for "sick babies" and for many years its operations were conducted aboard a hospital ship in the Boston harbor. A third unit was incorporated in 1946 and renamed in 1948 as the New England Center Hospital. In 1965, these three hospitals consolidated into one corporation now named New England Medical Center Hospitals, Inc. Over the years several other institutions have joined with the Boston Dispensary under the New England Medical Center Hospitals aegis: Pratt Diagnostic Clinic (1930) and the Rehabilitation Institute (1958).

Today, the Medical Center campus is part of a vital diverse city fabric. Its immediate neighbors include the Midtown Cultural District, the Chinatown Community and Tufts University Health Sciences Campus. See "Location Plan," Exhibit 1, pg. 14 and "Context Plan," Exhibit 2, pg. 15. The campus itself extends from Kneeland Street to the north, Oak Street to the south, Tremont Street to the west and Harrison Avenue to the east. See "Existing Core Campus Plan," Exhibit 3, pg. 16.

A decade ago, the Medical Center and Tufts University practiced joint planning and therefore some of the history and evolution of the Medical Center is intertwined with the University. The first master plan for the area was developed in 1965 by TAC, and Herman Field of Tufts University, in the early days of the BRA. It called for a huge megastructure for "T-NEMC" including 1000 hospital beds and all its associated activities, the schools of Tufts University, and housing for many students. See "NEMC Master Plan 1972," Exhibit 4, pg. 17. The plan assumed the elimination of the Music Hall and the Wilbur.

All of these previous master plans had been based on agreements as described in the 1965 South Cove Urban Renewal Plan which affirmed the development rights for the area -- from Oak to Kneeland Streets and from Tremont to Harrison Avenue for the Medical Center. That master plan envisioned a 1-C building (The Proger is 1-A and the Floating is 1-B) which would provide space for additional impatient beds and would replace the beds in the Pratt, Farnsworth, Rehab and Center buildings. Other diagnostic and support capacity needs were described, as well as a discussion of the need for additional research space and parking. See "NEMC Master Plan 1982 and May 1988," Exhibits 5 and 6, pgs. 18 and 19.

More recently-- within the past five years--the Medical Center and the University have taken on separate and distinct planning functions; the sections to follow provide a summary of the Medical Center's master planning goals and objectives for the future.

Property Ownership

New England Medical Center has recorded with the Suffolk County Registry of Deeds and filed with the Suffolk Registry District of the Land Court, its ownership of certain parcels of land. (See appendix for deed). See "Ownership Plan," Exhibit 7, pg. 20 for clarification of parcel ownership. In addition, the Medical Center retained land surveyors in April 1989 to provide a complete survey of its campus. See "Survey Maps," Exhibits 8, 9, 10 and 11, pgs. 21-24.

The Medical Center also leases space at 285 Tremont Street, to house a new day care center. The day care center is the only space the Medical Center currently leases. In addition, the New England Medical Center Real Estate Company Inc. owns the 35 Kneeland Street building.

Land Uses

The exhibits shown in this section depict the various uses of New England Medical Center's land and the land surrounding the Medical Center. See "Urban Renewal Plan," Exhibit 12, pg. 25. Following is a summary of the current land uses by the Medical Center:

- Parcel P-2 (Harrison Avenue - Washington Street: Farnsworth, Pratt, Ziskind and Proger Buildings) contains inpatient hospital services and research.

- Parcel P-8 (Washington Street - Tremont Street: Floating Hospital, Biewend Building, Tunnel Building (MRI) contains inpatient pediatric services and ambulatory care services.

Other parcels include buildings on the following sites:

- Bennet Street: The Holmes and 37 Bennet buildings house hospital administrative functions. The buildings are presently owned by TNEMC but are in the process of being transferred to the Medical Center.

- Ash Street: The Boston Dispensary and Jackson buildings contain hospital administrative functions and some outpatient clinical functions.

- Harrison Avenue: The Rehabilitation Institute and Center buildings include the hospital emergency room, some clinical, research and administrative space.

- Nassau Street: The 37 Nassau, Hemenway and Nursing Education buildings contain administrative functions.

- Kneeland Street: The 15 & 35 Kneeland Street buildings house research labs, administrative and support staff.

The comprehensive redevelopment plans conceived by the Medical Center in 1968 continue to guide the hospital's facility planning process. Although the timetables and design issues may have changed somewhat since 1968, the efforts towards facility modernization and appropriate space allocation of all programs and services is still very relative and realistic. Significant development has occurred since the last Facility Master Plan, submitted in 1982. The 1-B project (Floating Hospital) was completed and opened. The centralization and consolidation of critical care units (ICU's), ambulatory care services and the renovation of routine patient care units has also taken place. An outline of the facility development since 1982 is listed below:

1982 **Opening of the Boston Floating Hospital for Infants and Children.** Consolidation of all infant and pediatric care services including Level III Neonatal and Pediatric ICU's and all pediatric ambulatory services in one 283,000 gross square foot building. In addition, the operating rooms and the Coronary Care Unit (CCU) are also maintained in this building. The Floating Hospital opened with a licensed bed count of 96 beds. Today, it is licensed for 116 beds. Pediatric psychiatric services and additional neonatal and pediatric intensive care units were added to accommodate the growing number of severely ill infants and children. See "Boston Floating Hospital for Infants and Children," Exhibit 13, pg. 26.

1983 **Beginning of the Shuffle Space Project.** Shuffle Space was an extensive renovation, relocation and consolidation project which involved several patient care areas. The project has been phased in over the last five years. It included major decompression of the Pratt-Farnsworth building that involved approximately 11,000 square feet of renovation. Additional ICU beds and an adult psychiatric unit were also a major component of the project.

1984 **Completion of the Biewend Ambulatory Care Center.** The decision was made in 1980 and incorporated in the previous Master Plan, to consolidate all adult ambulatory care programs into one building. Previously, the ambulatory functions were dispersed throughout the hospital in ten or more locations. With approximately 100,000 gross square feet, the Biewend houses all adult specialty clinics including medicine, gynecology, oncology, neurology, neurosurgery, surgery, dermatology, psychiatry, urology, opthalmology, and orthopedics. A walkway was added from Biewend to the Floating in order to connect the outpatient clinic functions with the inpatient facilities. See "Biewend Ambulatory Care Center," Exhibit 14, pg. 27.

1985 **Purchase of 15 and 35 Kneeland Street Buildings.** The 15 Kneeland building which is known as the Tupper Research Institute accommodates approximately 111,000 gross square feet of research laboratory space. The 35 Kneeland building houses about 113,000 square feet of administrative and support functions for the hospital and affiliates as well as Tufts University. See "15 Kneeland Street" and "35 Kneeland Street," Exhibits 15 and 16, pgs. 28 and 29.

1986 **Opening of the Magnetic Resonance Imaging (MRI) Center.** The 8,000 gross square foot facility is located between the Floating Hospital and the Human Nutrition building in what is called the Tunnel building. The current facility is considered the most optimal location for this highly specialized service. The Medical Center is currently in the approval process for adding a second MRI unit. See "Magnetic Resonance Imaging Center (MRI)," Exhibit 17, pg. 30.

1987 **Completion of the Proger Entry.** In order to designate the Proger building located at 750 Washington Street as the main entrance to the hospital, a glass atrium which now services as the main entrance was constructed. See "Proger Entry," Exhibit 18, pg. 31.

1987 **Approval for 14 additional ICU beds.** Due to a growing patient population that is more intensely ill, the Medical Center received approval to add 14 new ICU beds. The beds are expected to open in the fall of 1989. The project consists of approximately 11,000 total gross square feet and will involve expansion of current ICU units within the existing facility structure. See "I.C.U. Project," Exhibit 19, pg. 32.

Building Occupancies

A survey of the Medical Center buildings indicates that all of the buildings are fully occupied and the buildings are used for a whole range of services including inpatient hospital care, outpatient clinics, research, and administrative services. See "Existing Building Section Diagrams," Exhibits 20, 21 and 22, pgs. 33-35. A brief background and description of these services reveals that the number of beds or bed base is becoming very limited for the range of services offered. Many of these buildings are outdated and have been renovated in recent years.

The chart below shows the year of renovation in parenthesis. The Medical Center has made every attempt to maintain state-of-the-art facilities and to utilize its existing core campus. The following is a summary of the building occupancies to date. Also, as requested, the heights of each of these buildings is provided in Exhibit 23, pg. 36. Further, the campus-wide FAR is 4.8.

Building	Year	No. of Levels	Gross Sq. Ft.	Current Use
Proger	1973 (1985) (1989)	10	221,579	Inpatient rooms, clinical labs, administration, diagnostic services, medical offices, research, radiology, radiation therapy and support services.
Pratt	1938 (1985)	7	51,766	Inpatient rooms, ambulatory surgery, administration, medical offices and support services.
Farnsworth	1947 (1985) (1987)	7	104,044	Inpatient rooms, ambulatory surgery, administration, medical offices and support services.
Floating	1982	9	282,390	Inpatient rooms, operating and recovery rooms, medical offices, support services, radiology, ambulatory care, clinical labs, diagnostic services, administration, coffee and gift shops.
Biewend	1924 (1983)	15	145,564	Ambulatory care, medical offices, support services, administration and clinical labs.
Ziskind	1925 (1988)	9	100,955	Research, medical offices, support services and clinical labs.
Rehab	1958	6	54,716	Inpatient rooms, emergency room, administration, medical offices, research and animal quarters.
Center	1930	6	49,064	Inpatient rooms, medical offices, ambulatory care, and support services.
Boston Dispensary	1883	5	46,386	Research, ambulatory care, medical offices, support services and administration.

Building	Year	No. of Levels	Gross Sq. Ft.	Current Use
MRI	1986	1	12,667	Diagnostic services and research.
Jackson	1930	5	23,562	Administration.
Common Services	1875	4	15,039	Administration and support services.
Tupper (15 Kneeland)		14	110,510	Research and administration.
35 Kneeland		11	103,565	Training and education, copy center, administration. (owned by NEMC Real Estate Company Inc.)
Holmes		5	16,076	Administration
17 Nassau		4	5,587	Credit Union, Research Finance and TNEMC
Hemenway		4	10,450	Administration
Nursing Education		3	3,072	Nursing Education Classrooms
Total			1,356,992	

Existing Agreements

Cooperation Agreements

Following are summaries of the 1966 and 1983 cooperation agreements. Copies of the actual agreements are included in a separate "Appendix" document.

- **1966 South Cove Urban Renewal Plan**

  On June 8, 1965, the Boston Redevelopment Authority (BRA), implemented the South Cove Urban Renewal Plan to reconstruct and rehabilitate the South Cove Urban Renewal area in downtown Boston. The Medical Center campus is situated within the South Cove Urban Renewal Area.

  On January 17, 1966, the Medical Center entered into a Cooperation Agreement with the BRA to implement the provisions and accomplish the objectives of the 1965 Plan. The 1966 Agreement specifically provides that the BRA "shall sell" and the "Medical Center shall acquire and develop those parcels that are marked P-2 through P-11 in accordance with the [1965] Plan..."

  The 1966 Agreement was amended on December 20, 1968, to reflect that the Medical Center was considering constructing married student housing in the South Cove Urban Renewal Area. This amendment did not otherwise alter the terms and conditions of the 1966 Agreement.

- **1983 Cooperative Agreement**

  On September 15, 1983, in a Memorandum of Understanding among New England Medical Center, Inc., the Trustees of Tufts College, and the Chinese Consolidated Benevolent Association of New England ("CCBA"), the Medical Center and Tufts agreed to provide financial and other means of support for the Chinese Community in exchange for the community's support for certain development proposals sponsored by the two institutions. Subsequently, in a decision of the City of Boston Board of Appeal dated December 12, 1983, the following statement appeared: "The Boston Redevelopment Authority has accepted the Memorandum of Understanding dated September 15, 1983 among NEMC, Tufts University and the Chinese Consolidated Benevolent Association with reference to four specific projects..." Pursuant to this Memorandum, the Medical Center transferred its rights to acquire the land and building located at 50 Herald Street, Boston, to the CCBA to be used for housing or as the basis for acquiring or establishing housing through a resale of the land and building.

  To assist in this purchase, the Medical Center contributed $100,000 to fund a contract allowing the CCBA to conduct a job training program and educational program to train persons for hospital-related jobs.

Payment in Lieu of Tax (PILOT) Agreement

See Appendix.

Voluntary Contribution

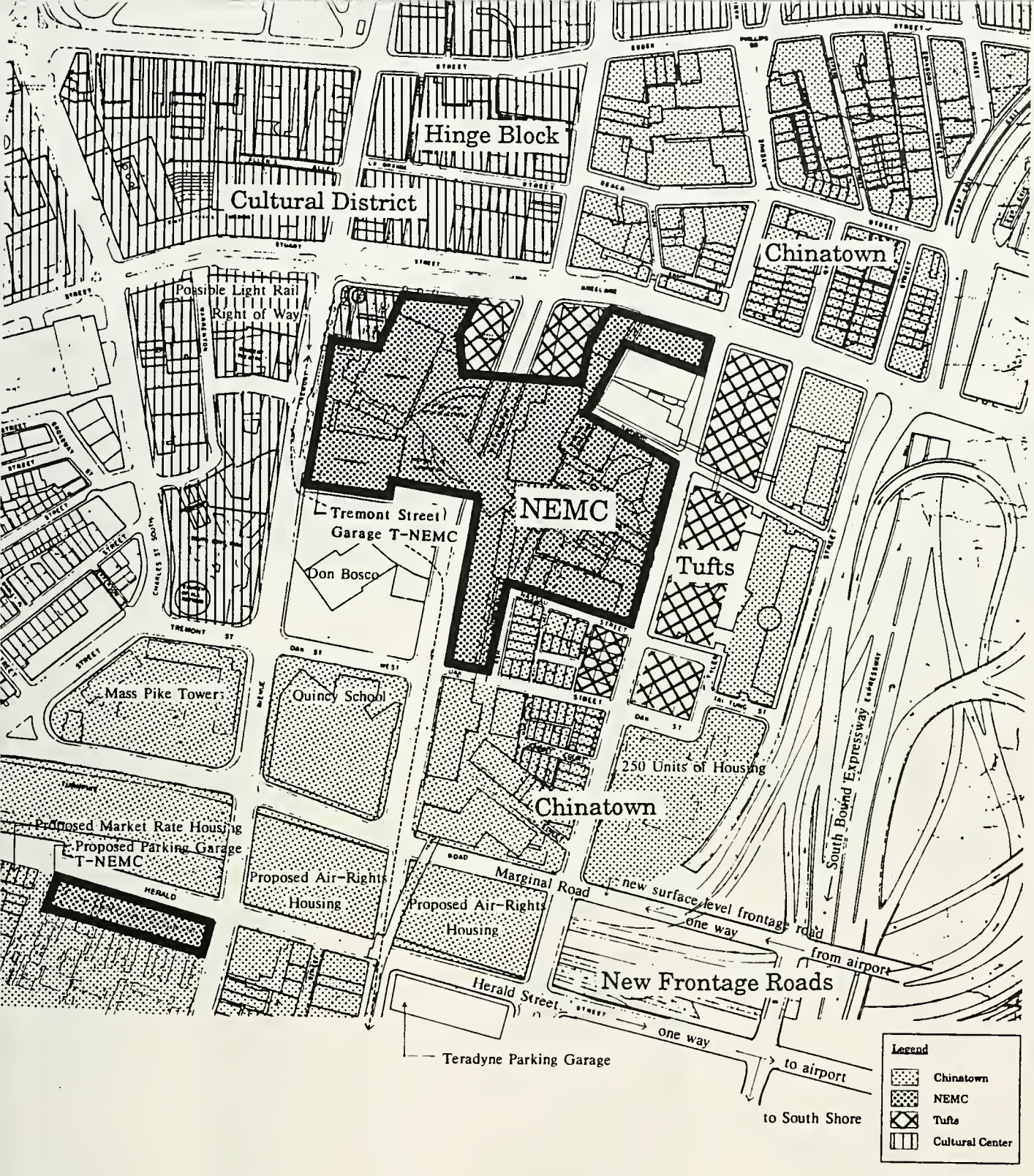
See Appendix.

NEW ENGLAND MEDICAL CENTER

MASTERPLAN

Location Plan

1



NEW ENGLAND MEDICAL CENTER

MASTERPLAN

Context Plan

2

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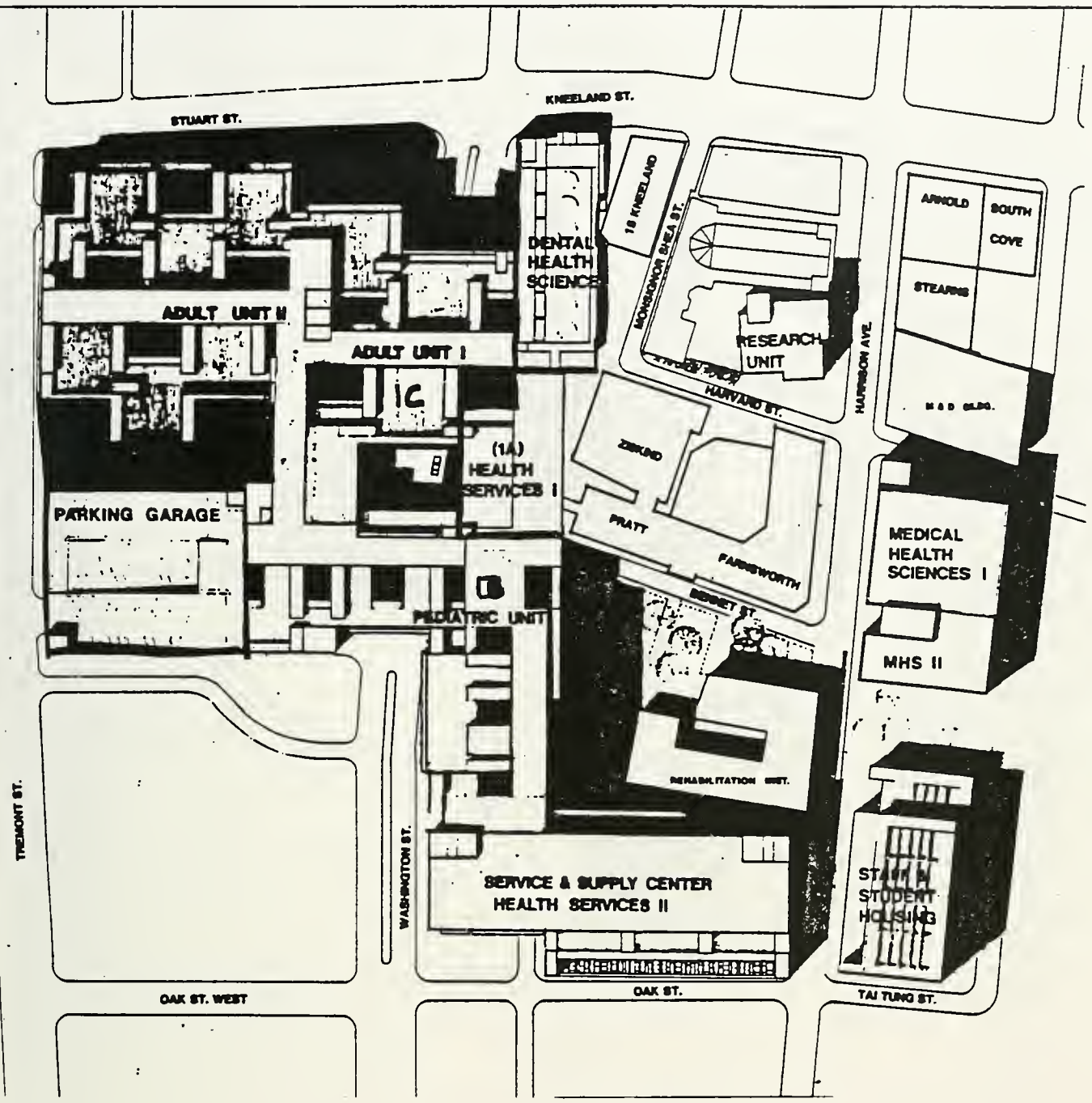
NEW ENGLAND MEDICAL CENTER

MASTERPLAN

Existing Core Campus
Plan 1989

3



Developed by The Architects Collaborative 1972

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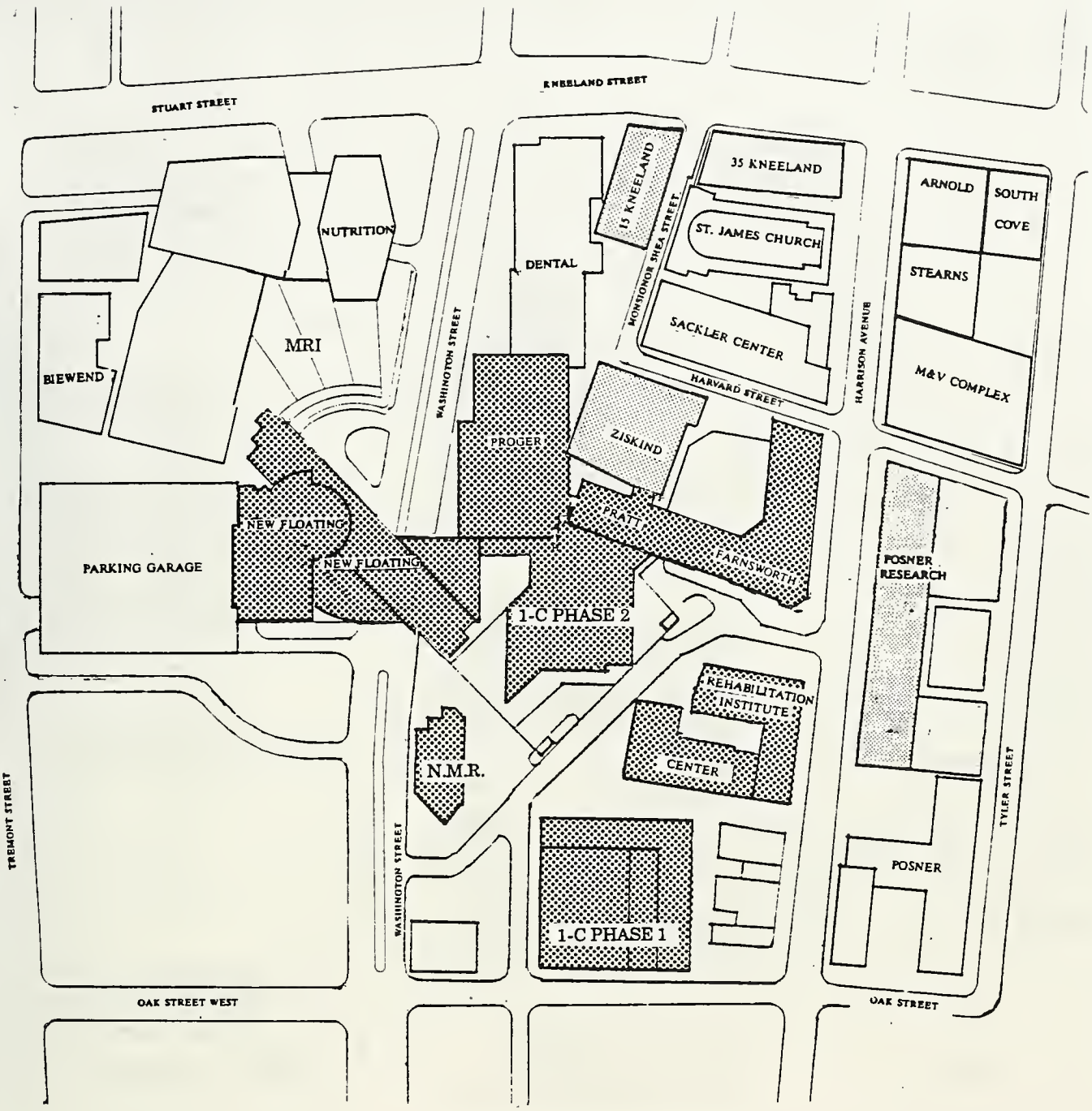
NEW ENGLAND MEDICAL CENTER

MASTERPLAN

NEMC Masterplan 1972

4



INPATIENT
ADMINISTRATION
RESEARCH
TUFTS & OTHERS
AMBULATORY
HOUSING

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Technology, Inc.
nd Hans H. Finne, Inc.

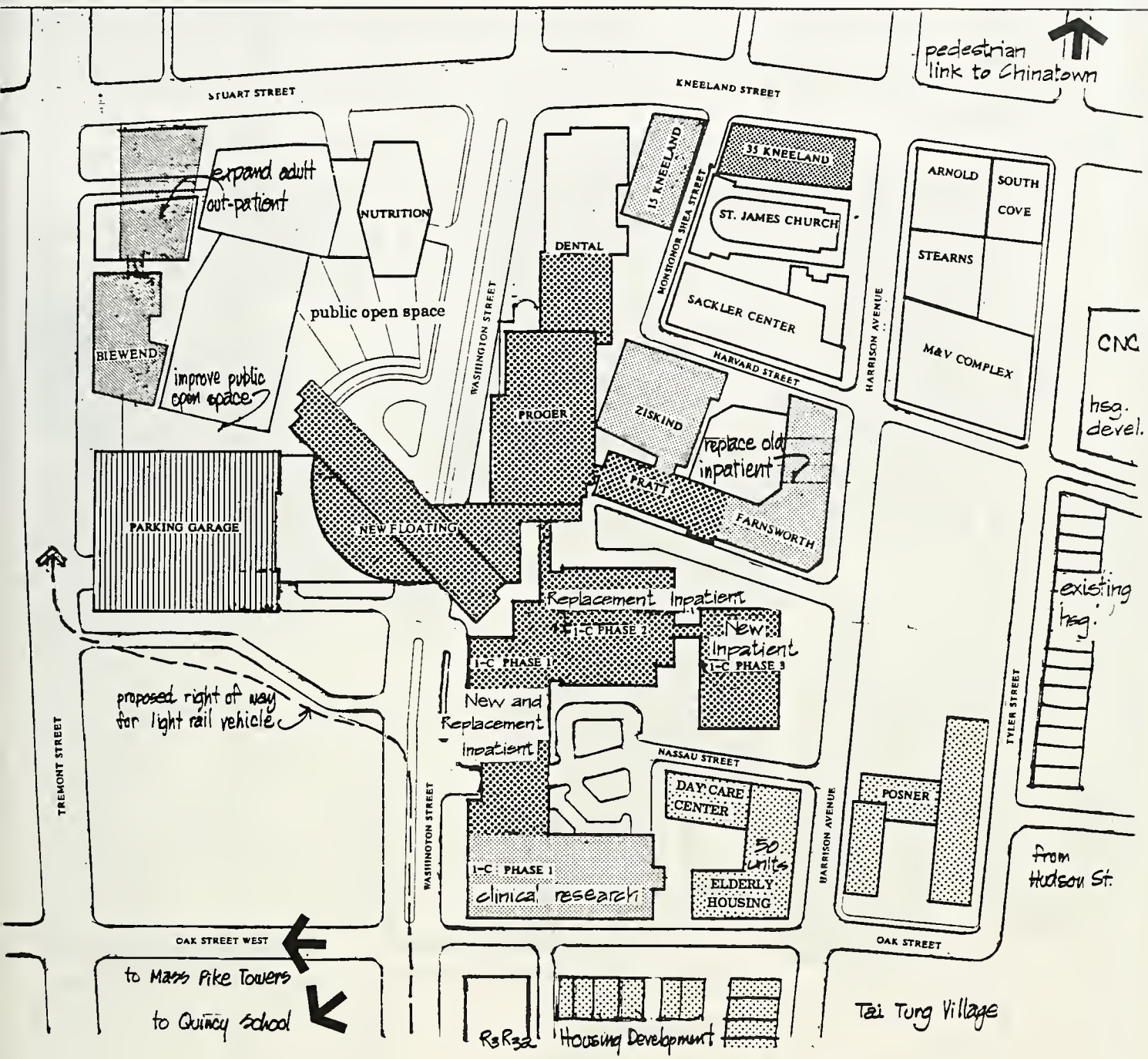
0 25 50 100

NEW ENGLAND MEDICAL CENTER

MASTERPLAN

NEMC Masterplan 1982

5



Parcel 1-C Developed by
Tsoi/Kobus & Associates and
Andre Wouters & Associates

0 25 50 100

NEW ENGLAND MEDICAL CENTER
MASTERPLAN

NEMC Masterplan
May 1988

Ownership Information as of 1985
Source: NEMC Planning Office

0 25 50 100

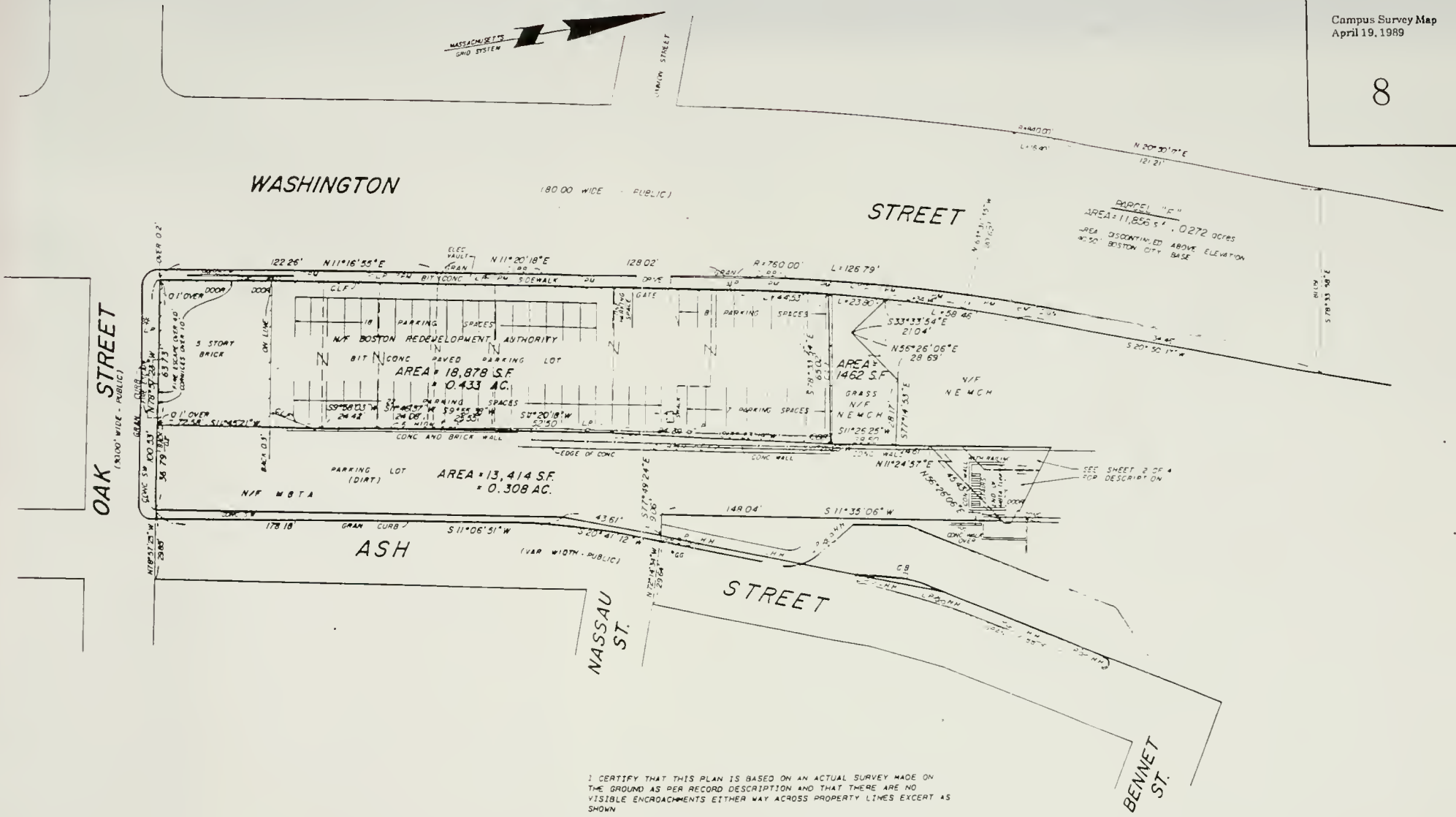
NEW ENGLAND MEDICAL CENTER
MASTERPLAN

Ownership Plan

7

Campus Survey Map
April 19, 1989

8


MASSACHUSETTS GRID SYSTEM
LINCOLN STREET
WASHINGTON STREET (80.00 WIDE - PUBLIC)
PARCEL "E"
AREA = 11,856 S.F. = .0272 acres
AREA DISCONTINUED ABOVE ELEVATION 40.50' BOSTON CITY BASE
OAK STREET (X100' WIDE - PUBLIC)
5 STORY BRICK
N/F BOSTON REDEVELOPMENT AUTHORITY
BIT CONC PAVED PARKING LOT
AREA = 18,878 S.F. = 0.433 AC.
18 PARKING SPACES
8 PARKING SPACES
7 PARKING SPACES
AREA = 1462 S.F.
GRASS N/F NEMCH
V/F NEMCH
CONC AND BRICK WALL
EDGE OF CONC
PARKING LOT (DIRT)
AREA = 13,414 S.F. = 0.308 AC.
N/F MBTA
ASH STREET (VAR WIDTH - PUBLIC)
NASSAU ST.
STREET
BENNET ST.
SEE SHEET 2 OF 4 FOR DESCRIPTION

I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL SURVEY MADE ON THE GROUND AS PER RECORD DESCRIPTION AND THAT THERE ARE NO VISIBLE ENCROACHMENTS EITHER WAY ACROSS PROPERTY LINES EXCEPT AS SHOWN

I CERTIFY THAT THE PARCELS SHOWN HEREON LIE WITHIN ZONE "C", AREA OF MINIMAL FLOODING, AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF BOSTON, MASS., COMMUNITY PANEL NO. 250286 0010 C, EFFECTIVE DATE APRIL 1 1982

I CERTIFY THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN

I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS

PLAN OF LAND

NEW ENGLAND MEDICAL CENTER AND
TUFTS NEW ENGLAND MEDICAL CENTER

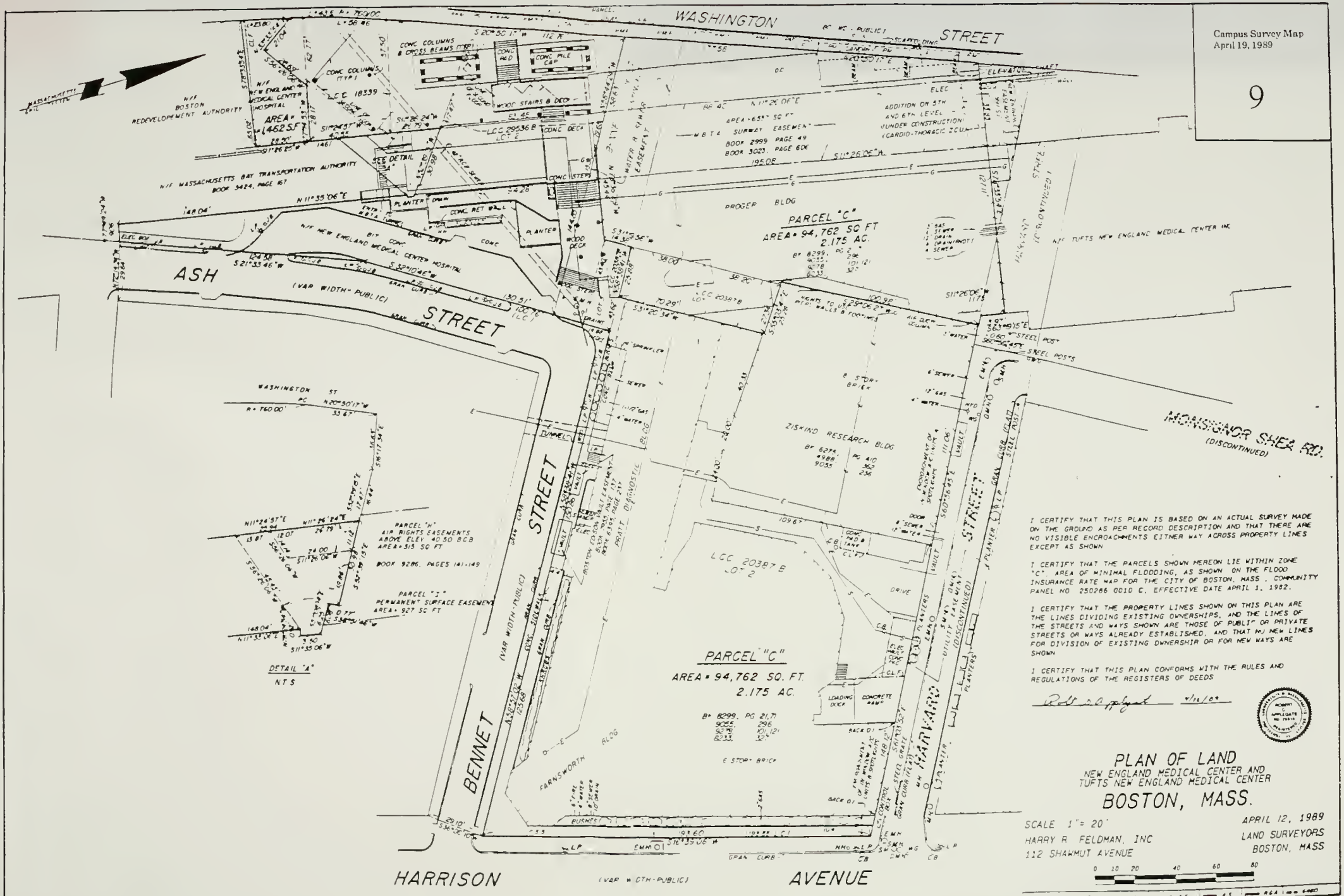
BOSTON, MASS.

SCALE 1" = 20'

APRIL 12, 1989

HARRY R. FELDMAN INC
112 SHAWMUT AVENUE

LAND SURVEYORS
BOSTON, MASS


WASHINGTON STREET
ASH STREET
BENNET STREET
HARRISON AVENUE
(VAR WIDTH-PUBLIC)
N/F BOSTON REDEVELOPMENT AUTHORITY
N/F NEW ENGLAND MEDICAL CENTER HOSPITAL
AREA = 1462 SF
LCC 18339
N/F MASSACHUSETTS BAY TRANSPORTATION AUTHORITY BOOK 3424, PAGE 167
CONC COLUMNS (TYP)
CONC COLUMNS & CROSS BEAMS (TYP)
CONC PILE CAP
ELEVATOR SHAFT
ADDITION ON 5TH AND 6TH LEVEL (UNDER CONSTRUCTION) (CARDIO-THORACIC BLDG)
AREA = 655 SQ FT SURVEY EASEMENT
WBTA BOOK 2999 PAGE 49
BOOK 3023, PAGE 606
LCC 29536 B
PROPER BLDG
PARCEL "C"
AREA = 94,762 SQ FT
2.175 AC.
BK 8299, PG 21,71
N/F TUFTS NEW ENGLAND MEDICAL CENTER INC
N/F NEW ENGLAND MEDICAL CENTER HOSPITAL
ZISKIND RESEARCH BLDG
BK 6278, 6988, 9055 PG 410 360 256
LCC 20387 B LOT 2
PARCEL "H" AIR RIGHTS EASEMENTS ABOVE ELEV 40.50 BCB AREA = 313 SQ FT
BOOK 9286, PAGES 141-149
PARCEL "I" PERMANENT SURFACE EASEMENT AREA = 927 SQ FT
DETAIL "A" NTS
MASSACHUSETTS AVE (DISCONTINUED)
STATE STREET (DISCONTINUED)
HARVARD STREET (DISCONTINUED)
FARNSWORTH BLDG
LOADING DOCK
CONCRETE BAND
UTILITY TAX MAN (DISCONTINUED)
STEEL GRATE
GRAN CURB (TYP)
CB
DRIVE
PLANTERS
BUSINESS
5 STORY BRICK
8 STORY BRICK
WASHINGTON ST
PC N20°50'17"W
R = 760.00'
PRATT DIAGNOSTIC
BOSTON EDISON EASEMENT
BOOK 6765, PAGE 217
TUNNEL
BLDG
SEE DETAIL "A"
CONC STEPS
PLANTER
BIT CONC
WOOD DECK
WOOD STAIRS & DECK
CONC RET WALL
ELEC BOX
ENTR BOILER ROOM
DOOR
STEEL POSTS
I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL SURVEY MADE ON THE GROUND AS PER RECORD DESCRIPTION AND THAT THERE ARE NO VISIBLE ENCROACHMENTS EITHER WAY ACROSS PROPERTY LINES EXCEPT AS SHOWN
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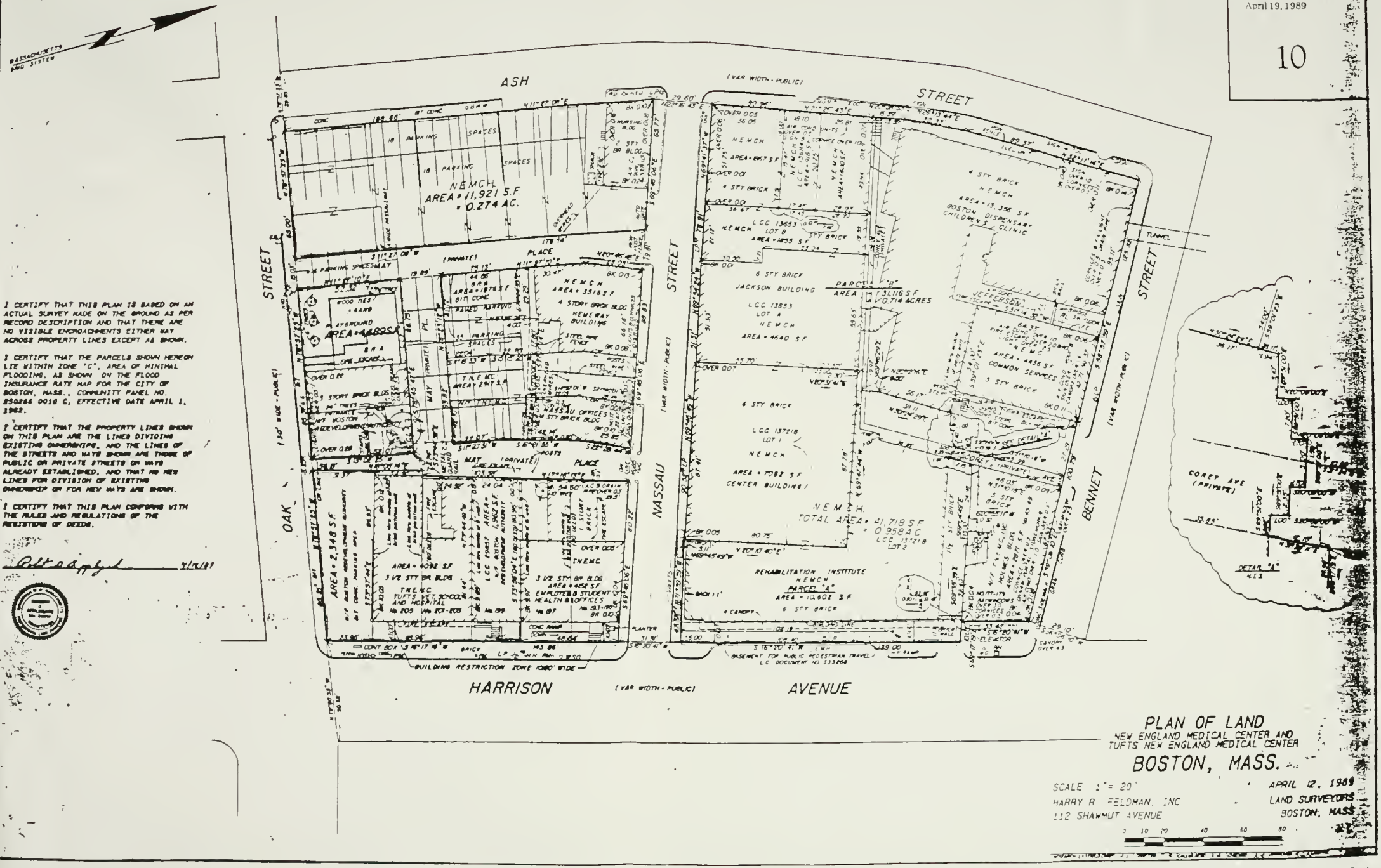
I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS
4/12/89
PLAN OF LAND
NEW ENGLAND MEDICAL CENTER AND TUFTS NEW ENGLAND MEDICAL CENTER
BOSTON, MASS.
SCALE 1" = 20'
HARRY R FELDMAN, INC
112 SHAWMUT AVENUE
APRIL 12, 1989
LAND SURVEYORS
BOSTON, MASS
0 10 20 40 60 80



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I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

4/19/89

PLAN OF LAND

NEW ENGLAND MEDICAL CENTER AND
TUFTS NEW ENGLAND MEDICAL CENTER

BOSTON, MASS.

SCALE 1" = 20'

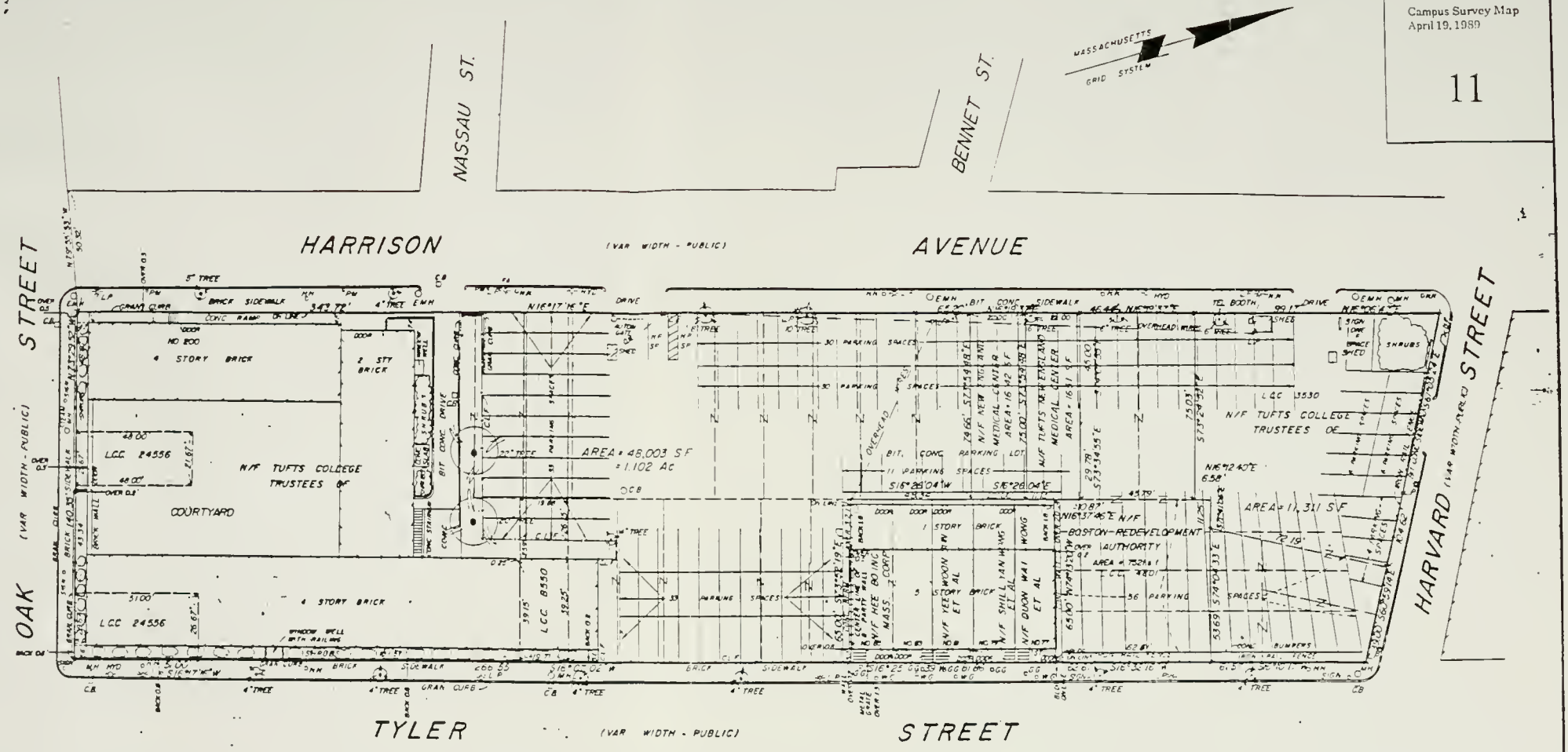
APRIL 12, 1989

HARRY R. FELDMAN, INC
112 SHAWMUT AVENUE

LAND SURVEYORS
BOSTON, MASS

Campus Survey Map
April 19, 1989

11



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Robert D. Coghlan 4/19/89

PLAN OF LAND
NEW ENGLAND MEDICAL CENTER AND
TUFTS NEW ENGLAND MEDICAL CENTER
BOSTON, MASS

SCALE. 1"= 20'
HARRY R FELDMAN, INC.
112 SHAWMUT AVENUE

APRIL 12, 1989
LAND SURVEYORS
BOSTON, MASS

0 10 20 40 60 80

0 25 50 100

NEW ENGLAND MEDICAL CENTER

MASTERPLAN

South Cove Urban n
Renewal Plan
dated August 1974

12

Photograph©Sam Sweezy 1989

Photograph ©Sam Sweezy 1989

NEW ENGLAND MEDICAL CENTER

M A S T E R P L A N

Biewend Ambulatory Care Center 1984

CAPITOL BANK

ovations by Tsoi/Kobus & Associates

tograph ©Sam Sweezy 1989

NEW ENGLAND MEDICAL CENTER

MASTERPLAN

35 Kneeland Street
Renovated in 1985

16

tograph©Sam Sweezy 1989

NEW ENGLAND MEDICAL CENTER

MASTERPLAN

Magnetic Resonance Imaging Center (MRI) 1986

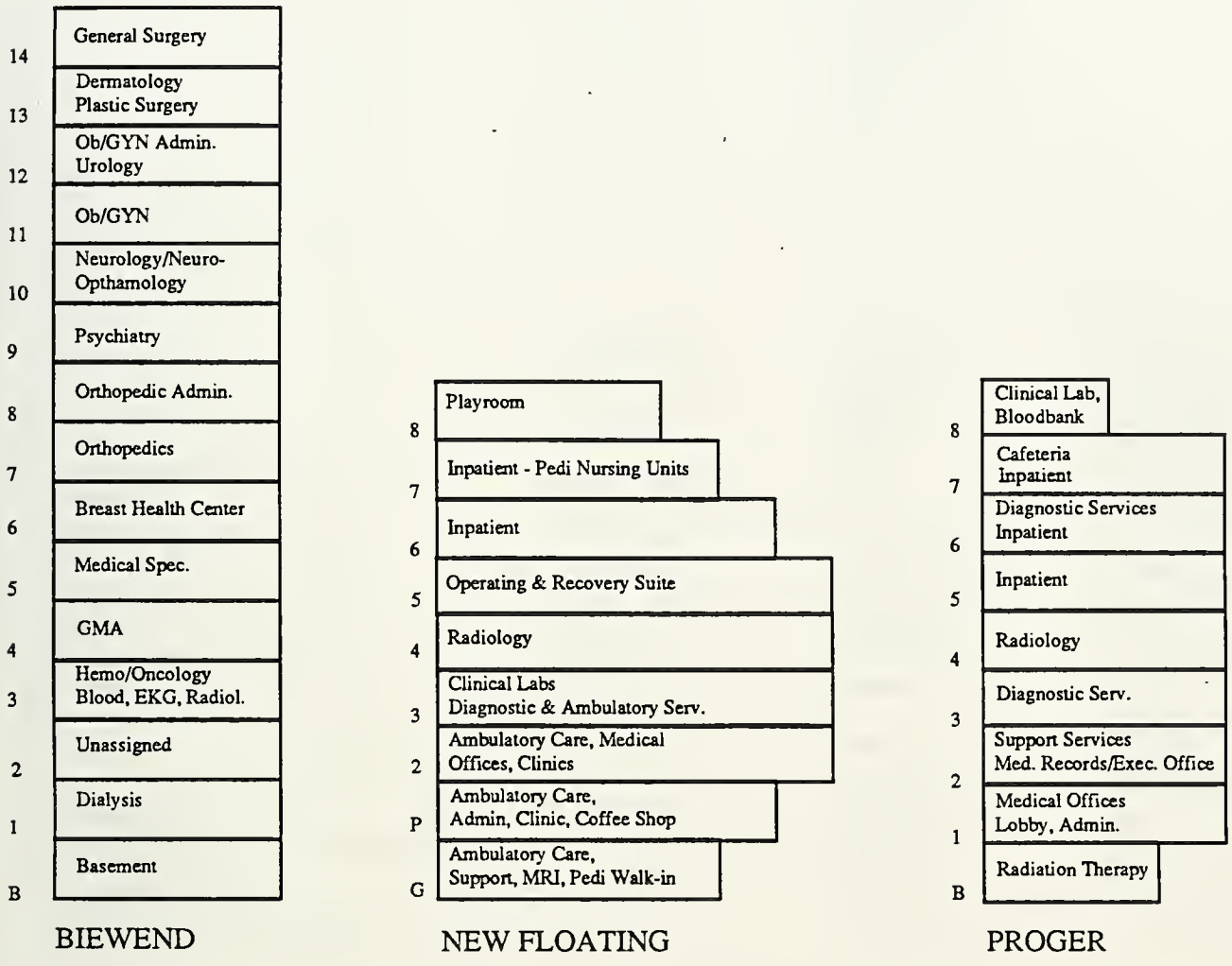
dition by Tsoi/Kobus & Associates

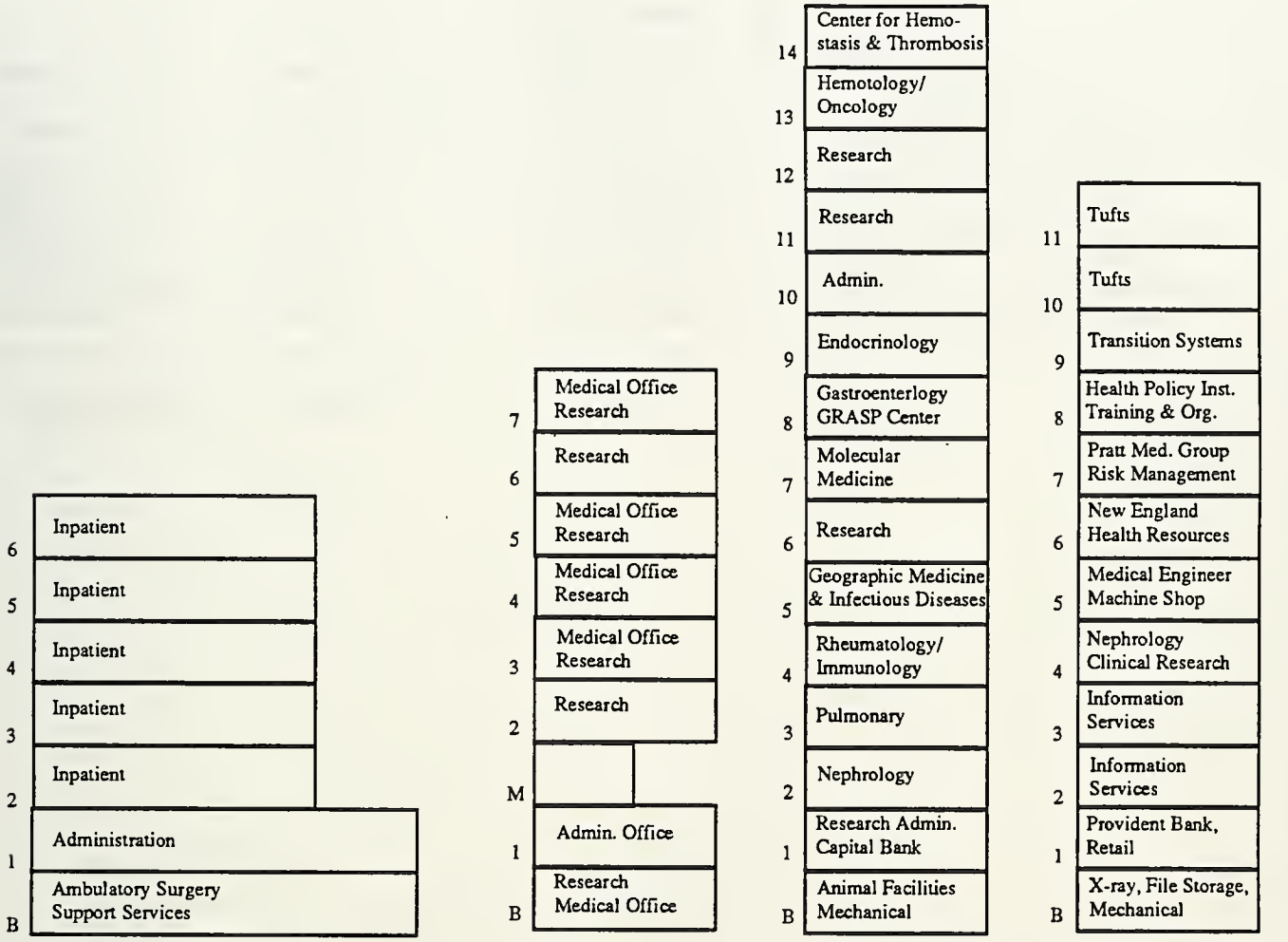
otograph ©Sam Sweezy 1989

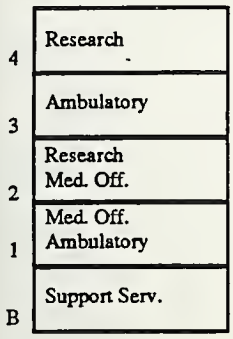
NEW ENGLAND MEDICAL CENTER

MASTERPLAN

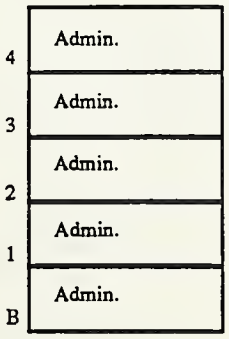
Proger Entry
Completed in 1987


14
General Surgery
13
Dermatology
Plastic Surgery
12
Ob/GYN Admin.
Urology
11
Ob/GYN
10
Neurology/Neuro-
Opthamology
9
Psychiatry
8
Orthopedic Admin.
7
Orthopedics
6
Breast Health Center
5
Medical Spec.
4
GMA
3
Hemo/Oncology
Blood, EKG, Radiol.
2
Unassigned
1
Dialysis
B
Basement
BIEWEND
8
Playroom
7
Inpatient - Pedi Nursing Units
6
Inpatient
5
Operating & Recovery Suite
4
Radiology
3
Clinical Labs
Diagnostic & Ambulatory Serv.
2
Ambulatory Care, Medical
Offices, Clinics
P
Ambulatory Care,
Admin, Clinic, Coffee Shop
G
Ambulatory Care,
Support, MRI, Pedi Walk-in
NEW FLOATING
8
Clinical Lab,
Bloodbank
7
Cafeteria
Inpatient
6
Diagnostic Services
Inpatient
5
Inpatient
4
Radiology
3
Diagnostic Serv.
2
Support Services
Med. Records/Exec. Office
1
Medical Offices
Lobby, Admin.
B
Radiation Therapy
PROGER

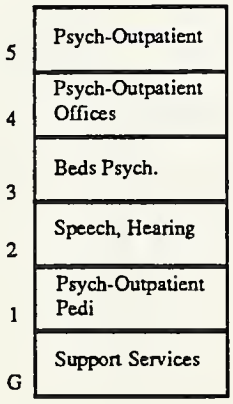

6 Inpatient
5 Inpatient
4 Inpatient
3 Inpatient
2 Inpatient
1 Administration
B Ambulatory Surgery
Support Services
PRATT/FARNSWORTH
7 Medical Office
Research
6 Research
5 Medical Office
Research
4 Medical Office
Research
3 Medical Office
Research
2 Research
M
1 Admin. Office
B Research
Medical Office
ZISKIND
14 Center for Hemo-
stasis & Thrombosis
13 Hemotology/
Oncology
12 Research
11 Research
10 Admin.
9 Endocrinology
8 Gastroenterlogy
GRASP Center
7 Molecular
Medicine
6 Research
5 Geographic Medicine
& Infectious Diseases
4 Rheumatology/
Immunology
3 Pulmonary
2 Nephrology
1 Research Admin.
Capital Bank
B Animal Facilities
Mechanical
15 KNEELAND
TUPPER
11 Tufts
10 Tufts
9 Transition Systems
8 Health Policy Inst.
Training & Org.
7 Pratt Med. Group
Risk Management
6 New England
Health Resources
5 Medical Engineer
Machine Shop
4 Nephrology
Clinical Research
3 Information
Services
2 Information
Services
1 Provident Bank,
Retail
B X-ray, File Storage,
Mechanical
35 KNEELAND



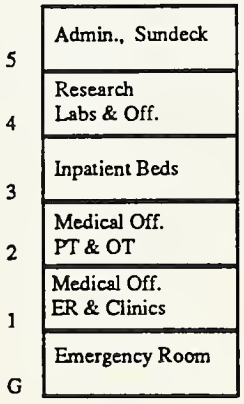
BOSTON DISP.



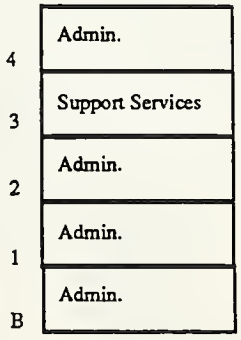
JACKSON



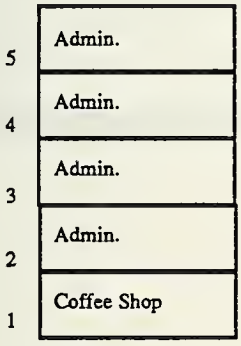
CENTER



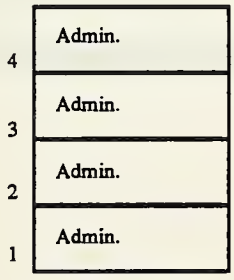
REHAB INSTITUTE



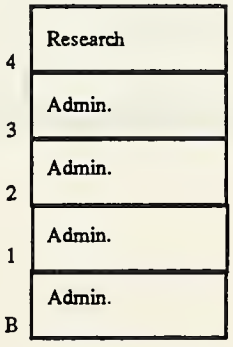
COMMON SERVICES 37 BENNET



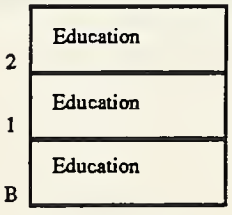
HOLMES



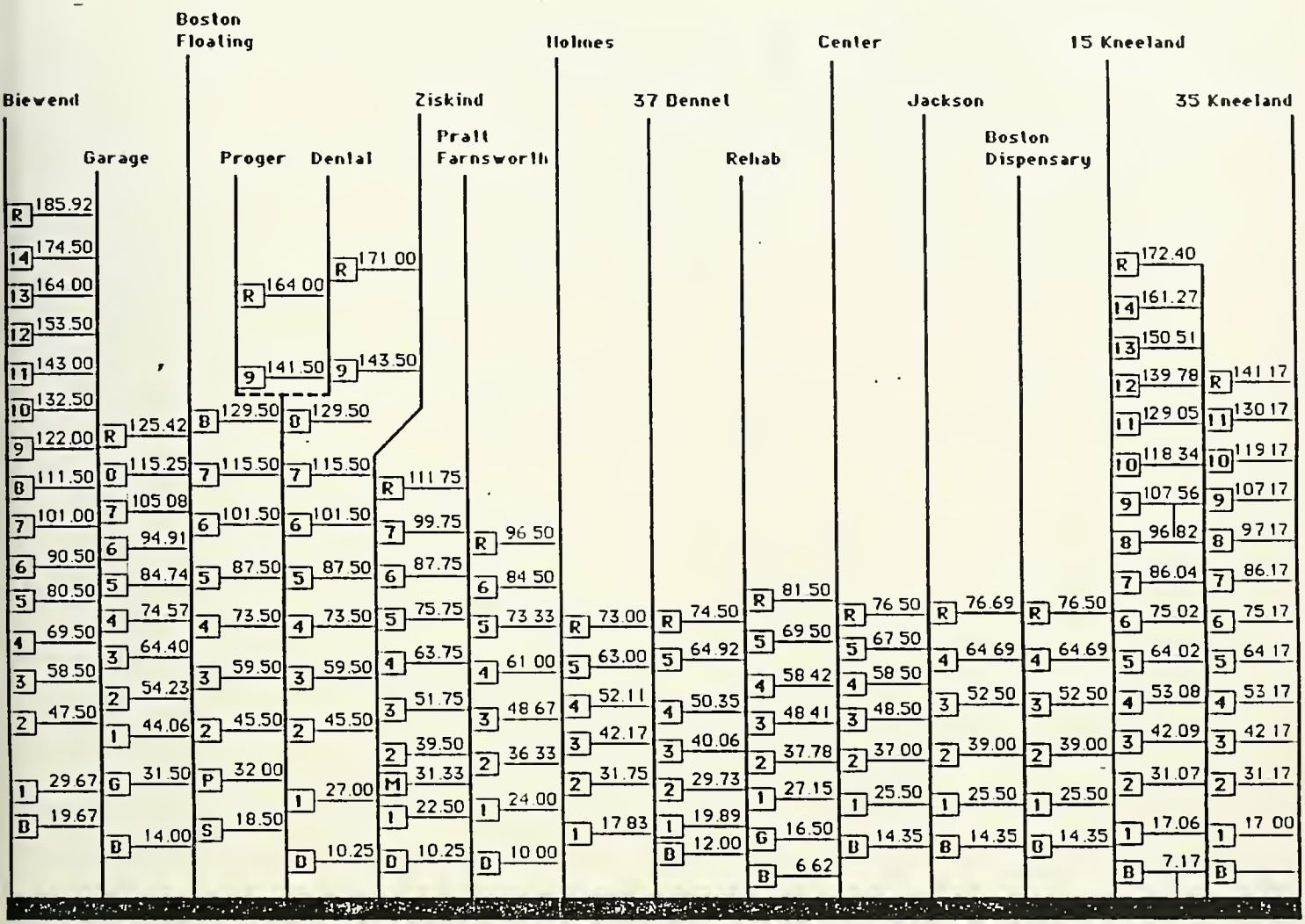
17 NASSAU



HEMENWAY



STAFF ED.



Architectural Services
N E M C H
May 22, 1985 rev 11/27/87

New England Medical Center (NEMC) is a not-for-profit, tertiary referral, teaching and research hospital in downtown Boston adjacent to the Tufts University Health Sciences Campus. The Medical Center is a specialized diagnostic and referral center offering comprehensive inpatient and outpatient care for both adults and children. Two major expressways and two rapid transit lines are located within one quarter of a mile of the hospital to allow for excellent access to the hospital. Most of Boston downtown area lies within a one-mile radius of NEMC and it sits in the heart of one of the City's most exciting neighborhoods -- Chinatown.

Description of Services

Today, the Medical Center operates 480 beds, including 299 adult medical/surgical, 40 adult ICU, 25 adult psychiatric, 106 pediatric medical/surgical, and 10 pediatric psychiatric beds. The staff includes more than 365 full-time physicians and almost 4000 employees.

The 4000 employees who work at New England Medical Center represent varied cultural, educational, and social backgrounds. The employees form a tightly knit community of people working at all kinds of jobs for one common purpose -- to provide the best, most supportive patient care. The Medical Center employees consist of approximately 900 FTE (full-time equivalent) nurses; 265 residents and interns; 145 medical technologists; 60 radiology technicians; 25 therapists and many other professionals. These include social workers, counselors, dieticians, transport aides, and maintenance, safety and administrative personnel bringing the total close to 3,000 FTE's. Many employees have been at the Medical Center for years and a special kind of dedication exists. In exchange for hard work and dedication, the Medical Center tries to create an environment in which employees feel challenged to push their abilities to the limit. That means broadening career opportunities for every employee by offering in-house training and tuition assistance programs. New England Medical Center is one of the largest employers in the city of Boston. Nearly 40% of all employees live in the city, 23.5% are minorities and 70% are women.

The Medical Center draws approximately 30% of its adult patients from Boston, with a heavy predominance of patients from South Boston, Dorchester, Back Bay, and the South End. Within the Rte. 495 belt (excluding Boston), NEMC draws 60% of its patients, and the remaining 10% of the patients come from out-of-the-state (New Hampshire, Maine, Rhode Island, New York and beyond). The pediatric market is slightly different, approximately 20% come from Boston, 50% from within 495 and 30% from out-of-state. The Medical Center is the primary hospital of choice for many South Boston, South End and South Shore residents. See "Service Area Map - NEMC Discharges by Market-FY 87," Exhibit 24, pg. 46.

To further its mission as a major regional center of medical training, education, research and treatment, the Medical Center looks to expand its base of services to meet demand. In examining the demand in the market place and the existing environment at the Medical Center, we anticipate that future growth for hospital services will continue to occur over the next five years at a minimum.

The Medical Center offers services in almost every major specialty and subspecialty and its facilities provide a full range of technically advanced diagnostic/treatment services including an electrophysiology laboratory, high energy linear accelerator, multiple laser modalities, a magnetic resonance (MRI) scanner, and a gallstone lithotripter. An innovator and leader, the Medical Center was one of the founders of the Boston Center for Liver Transplantation and the Boston Center for Heart Transplantation. As a tertiary Medical Center, NEMC participates in the Boston Medflight program, a helicopter service for trauma patients.

Mission Statement

In order to further its goals as a major academic Medical Center, a commitment to develop new programs in patient care, research and education is inherent. The Medical Center plans to continue its longstanding relationship with the people and physicians of Boston, Massachusetts and New England through its network of referring physicians, clinical affiliations with other institutions, and 17 contracts with health maintenance organizations. The goals and objectives of the Medical Center are more clearly stated in the following mission statements. These statements are the guiding force of what is presented in this master plan.

Mission Statements:

- Provide high quality tertiary level **patient care** with a core of primary care programs.
- Maintain a tradition of excellence in **research and training.**
- Develop a **model system of care** that implements innovative patient care, management and educational programs.
- Continue its **leadership role** in the development of new technologies and advanced diagnostic and treatment procedures.
- Participate as a **partner and a member of the Chinatown community in the redevelopment of downtown Boston.**

The master plan sets out a development framework for accomplishing these stated goals.

Patient Care

The Medical Center is one of perhaps a dozen major academic referral centers in the United States. Medical Centers such as NEMC specialize in tertiary level or highly complex patient care. Within Boston, NEMC is a leader in delivering patient care along with other hospitals such as Massachusetts General, Brigham & Women's, Beth Israel, Dana Farber, New England Deaconess, Children's and University Hospital. Because of the national and international reputation of the Boston teaching hospitals, NEMC and others experience very high occupancy rates and constant increases in inpatient admissions and outpatient visits. The occupancy rates at the Medical Center over the last five years has ranged from 85% to 95%.

In 1988, the Medical Center treated 16,000 inpatients, approximately a 5% increase in admissions over 1987. The outpatient visits are growing at a faster rate (11%) with 233,000 visits in 1987 and 259,000 in 1988. The Medical Center anticipates that the number of admissions will continue to increase as the population becomes older and patients become more severely ill and require tertiary care.

The Medical Center currently provides adult and pediatric care in all major specialties and subspecialties except obstetrics.

There are 18 clinical departments which are listed below:

- Anesthesiology
- Dentistry
- Dermatology
- Gynecology
- Medicine
  - Allergy
  - Cardiology
  - Endocrinology
  - Gastroenterology
  - General Internal Medicine
  - Hematology-Oncology
  - Infectious Disease
  - Nephrology
  - Pulmonary
  - Rheumatology
- Neurology
- Neurosurgery
- Opthalmology
- Orthopedic Surgery
- Ololaryngology
- Pathology
- Pediatrics
  - Birth Defects/Genetic Counseling
  - Cardiology
  - Endocrinology
  - Gastroenterology/Nutrition
  - General Pediatrics
  - Hematology-Oncology
  - Infectious Disease
- Pediatrics (cont'd)
  - Neonatology
  - Nephrology
  - Neurology
  - Pulmonary
  - Rheumatology
- Psychiatry
  - Adult Psychiatry
  - Child Psychiatry
  - Clinical Pharmacology
- Radiology
  - CT Scanning
  - MRI Scanning
  - Neuroradiology
  - Nuclear Medicine
  - Pediatric Radiology
  - Ultrasound
  - Angiography
- Rehabilitation Medicine
- Surgery
  - Cardiothoracic
  - Gastrointestinal
  - Pediatric
  - Pediatric Trauma
  - Plastic
  - Transplantation
  - Vascular
- Therapeutic Radiology
- Urology

The Medical Center has developed a reputation for outstanding patient care in many clinical areas -- some of which are highlighted below:

Transplantation. NEMC was the first hospital in Boston to perform both heart and liver transplants. NEMC is a member of two collaborative transplantation programs. The Boston Center for Liver Transplantation ("BCLT") consists of NEMC, Children's Hospital, Massachusetts General Hospital, and New England Deaconess Hospital. The Boston Center for Health Transplantation ("BCHT") consists of NEMC, Children's Hospital, Massachusetts General Hospital and Brigham and Women's Hospital. BCLT and BCHT provide for joint screening of transplantation candidates, establishment of treatment protocols, granting of hospital privileges to participating physicians, dissemination of research results, and establishment of joint training programs.

Trauma. In 1981, the Hospital opened the Kiwanis Pediatric Trauma Institute ("KTI"), which was the nation's first regional trauma center devoted exclusively to pediatric care. Kiwanis Foundation of New England, the philanthropic arm of the New England District of Kiwanis International, has been funding KTI in recent years by approximately $250,0000 annually. Approximately 150 children are referred to the Hospital through KTI each year.

Critical Care Transport. The Hospital was a founder of Boston MedFlight, a critical care helicopter service shared by NEMC and seven other Boston hospitals. The specially equipped and staffed medical rescue helicopter transports critically ill or injured patients from throughout the New England area to its sponsor hospitals. Boston MedFlight had been used to transport approximately 230 patients to the Hospital.

Neonatology. The new Floating Hospital building includes a 28-bed neonatal intensive care unit within its 106 pediatric beds. Neonatal activity has increased in recent years as a result of advances in the treatment of severely premature infants.

Pediatric Hematology/Oncology. The volume of admissions and clinic visits for NEMC pediatric hematology/oncology patients has increased substantially. The 176 admissions for the first half of 1988 represents a 22% increase from last year and a 400% increase from 1984. The treatment of pediatric leukemia, in particular, has increased in its complexity, and most community hospitals are now referring these patients to tertiary care institutions such as NEMC.

Pediatric Rheumatology. NEMC is the coordinating center of the Affiliated Children's Arthritis Centers of New England. This network of 15 hospitals in New England was founded in 1984 to improve the quality of health care for children with rheumatic diseases. The Hospital initially received a three year grant of $450,000 from the United States Department of Health and Human Services for tertiary diagnostic treatment and follow-up for pediatric patients with rheumatic diseases and for professional education and coordination of clinical services at the other network hospitals.

New England Medical Center has always played a role in the evaluation of new technologies. In 1975, NEMC acquired the first approved whole body CT scanner in Massachusetts, indeed one of the first in the country. NEMC physicians played a prominent role in evaluating CT technology for efficacious use in both the body and the head, as well as developing clinical protocols to reduce the cost of diagnostic workups and to eliminate unnecessary surgeries. NEMC is serving that very same role with the development of MRI (Magnetic Resonance Imaging), a new imaging technique. MRI uses radiofrequency signals in a highly magnetized field to measure and image protons within the body. It is especially useful in imaging body tissues and biochemical activity. MRI has distinct diagnostic capabilities. NEMC also offers a whole range of other diagnostic modalities including ultrasound, nuclear medicine, angiography and conventional x-rays.

In 1988, NEMC began to work with the Massachusetts General Hospital on a new therapy for treating gallstones called gallstone lithotripsy. Lithotripsy is the crushing of stones using shock waves.

Education and Training

The Medical Center has approximately 365 full time physicians on its medical staff and another 100 special and scientific staff. All of these physicians admit primarily to the Medical Center. The Medical Center has developed strong referral patterns as evidenced by its wide patient origin base. These referral patterns are believed to be a result of solid relationships with graduates of Tufts University Schools of Medicine and Dentistry-- many of whom remain in New England. The Medical Center has also developed strong relationships with physicians at other Tufts affiliated hospitals in the greater Boston area.

The average age of the physicians at the Medical Center range from approximately 41 to 51 years with the median being roughly 45 years. Nearly 90% of the full-time physicians are board-certified and hold teaching appointments at Tufts University Schools of Medicine and Dentistry. The relatively young and highly qualified medical staff will continue their patient care activity in the future and the Medical Center's anticipates that this master plan will address their growing needs.

Training future generations of physicians is one of the Medical Center's key missions as an academic medical center. In fact, an extremely small number of hospitals around the country -- about 1% -- train approximately half of all residents in the United States. In 1987, 132 residents completed their training at the Medical Center. Most will fan out to practice medicine all over the country and others will pursue fellowships for further study. In all, about 360 residents participate in the Medical Center's 23 residency programs in an average year. To guarantee the widest possible educational experience, the Medical Center must offer the full range of clinical services in order to create a balanced learning environment.

The Medical Center employs approximately 700 nurses with the majority being registered nurses and the remainder being licensed practical nurses, and nursing assistants. Registered nurses provide over 75% of direct patient care in the general units and 100% of the care in the intensive care units. NEMC is one of the few Boston hospitals to provide primary nursing in all its units, a concept whereby each patient is assigned a nurse who takes primary responsibility for the patient's care throughout his or her stay. In 1985, the Medical Center created the Center for Nursing Case Management in order to expand its primary care concept. Primary nurses are viewed as case managers and are responsible for certain standard outcomes, including an appropriate length of stay; effective and efficient use of resources; and established clinical standards for each case type. The hospital believes this concept creates greater professional autonomy and authority for the nursing staff and also results in more cost effective use of resources.

Other innovative nursing programs underway at the Medical Center include: a pilot project for self administration of patient medication; expanded employee health programs provided by the ambulatory nursing staff to NEMC employees and area businesses; two research projects which measure variables affecting the length of a patient's stay; and a computer based nursing information system to measure nursing intensity and specific patient outcomes.

Research

New England Medical Center has consistently undertaken a large and diverse program of medical research. In 1987 the hospital received the sixth largest share of hospital-based research funds in the country awarded by the National Institute of Health (NIH). By 1988, the Hospital has moved up and is currently ranked as the fifth largest hospital based research center in the country. Hospital management is committed to the further expansion of research activities and believes these activities to be crucial in the recruitment of talented academic physicians and scientists to the Hospital. The growth in research dollars has been remarkable over the last four years. NEMC received approximately $13 million from research grants and contract in 1985; $15 million in 1986; $20 million in 1987 and an estimated $25 million in 1988.

The Medical Center has a long history of achievements in clinical research ranging from the formulation of Similac, the first synthetic milk product for infants, in 1919; to pioneering work in immunology in the 1950's; to current research activity with Interleukin-2, a cancer drug therapy.

Some of the current research programs are highlighted below:

Interleukin-1 and 2: In 1987, NEMC received a new $3 million grant from the National Cancer Institute (NCI) to expand its treatment of advanced cancer patients with an experimental therapy using interleukin-2. NEMC researchers have recently expanded treatments to include breast cancers and lymphomas and are refining the treatment to reduce toxicity and improve effectiveness. NEMC is one of six institutions nationwide which have been designated by NCI for

treatment of patients using Interleukin-2. In addition, NEMC and Tufts researchers, working with colleagues at the MIT and Wellesley College have succeeded in isolating and cloning Interleukin-1, a powerful element in the body's immune system.

Brain tumors: NEMC and MIT researchers have been awarded a $1.2 million grant from the U.S. Department of Energy for clinical trials of a new treatment called Neutron Capture Therapy. The treatment uses high-energy short range nuclear particles to destroy brain tumors with minimal harm to surrounding healthy tissue. Other NEMC researchers are developing a treatment wherein ultrasound radiation is used to focus heat on malignant tumors while avoiding nearby tissue.

Other cancer research: NEMC is participating in a 10-year study to determine the relative effectiveness of radiation and surgery in treating eye cancer. NEMC researchers have developed a method which may lead to earlier detection and treatment of T-cell leukemia. A team of NEMC researchers is coordinating research which will study the effects of diet on breast cancer rates in approximately 6,000 women nationwide. NEMC is also studying the viruses which cause cervical warts, and the mechanism by which such warts can become cancerous.

Heart Disease: NEMC is developing a technique which may improve the effectiveness of balloon angioplasty, a procedure which unblocks clogged blood vessels without the need for coronary bypass surgery. NEMC researchers are working to develop new materials to be used in synthetic replacements for damaged arteries, since existing materials are relatively ineffective when the damaged artery is small. NEMC is participating in a nationwide study to determine the effectiveness of aspirin in preventing stroke. Another NEMC research team is seeking to better explain the mechanism by which blood clots are formed.

Neurology: The Hospital has developed a technique, using high resolution video cameras and computer imaging, which records detailed color images of electrical activity in the brain. This technique may have important implications in the treatment of Alzheimer's disease, epilepsy, brain tumors, and degenerative neuromuscular disorders. NEMC researchers have also developed a procedure which uses MRI technology and a complex computer program to develop more precise images of the brain.

The Medical Center is committed to the further expansion of research activities, and believes these activities are crucial in recruiting talented academic physicians and scientists.

A review of the research goals at the Medical Center results in the following:

- Increase research volume in federal funded research (NIH) and private funded research.

- Develop new areas of research which capitalizes on the clinical expertise of the Medical Center, represents national health priorities and reflects unique opportunities for research excellence.

- Expand current on-site research facilities to accommodate increased activity. Explore options for an off-site research facilities that may include joint partnerships with other providers or industries.

- Attract "intellectually" stimulating clinical trial (patient tested) research activity.

- Establish multidisciplinary research programs that focus on the common interests of the researchers .

- Initiate a management information and communication system that will serve as a teaching and educational forum for area researchers.

In 1986, the Medical Center almost doubled its research capacity with the creation of the Earl S. Tupper Research Institute (15 Kneeland Street), a 110,000 square feet facility with state-of-the-art research laboratories. With the recently-completed renovation of the Ziskind building, the Medical Center will further enhance its ability to conduct groundbreaking biomedical research. With close collaboration with colleagues from Tufts University School of Medicine and other academic research institutions in Boston and throughout the United States, the Medical Center research efforts are expanding significantly. In late 1987 and early 1988, the BRA (Policy Development and Research) undertook a thorough evaluation of Boston's medical research industry. The report concludes that there is insufficient research space to accommodate the growing research industry in Boston. "Biomedical research in Boston hospitals is a vital and expanding part of the medical sector of the Boston economy." The space for research is estimated to grow at a rate of 14% with the research budgets in Boston hospitals growing equally as fast. The Medical Center participated with the BRA staff in completing their interim and then final report. We agree with these findings and believe this master plan has been created in part to accommodate for this projected growth.

Model Delivery Systems

The Medical Center prides itself on being an innovator in patient care. One of its goals is to provide a model system for health care delivery and over the last six months, the Institute for the Improvement of Medical Care and Health was established to develop a comprehensive way to assess how well the health care system performs. The Institute is staffed with an interdisciplinary team of physicians, social scientists, and public policy experts whose work is recognized nationally. A major goal of the Institute is to build a more active partnership between patients and their health care providers. Such a partnership depends on an understanding of how patients, providers and insurers judge the quality of health care. With this information, the Institute can build models that give patients an opportunity to get involved in decisions that affect their treatment and, afterwards, to judge the quality of treatment.

Past work of Institute members has focused on developing and perfecting surveys to collect this kind of information, including a health status survey and a questionnaire to measure patient satisfaction. They have also studied a myriad of factors affecting patient care and the outcomes of that care. Currently, scientists at the Institute are focusing on patient perceptions toward their health care, ways to increase patient involvement in decisions about their care and how various physician practice styles affect health care and outcomes. Eventually, the information gathered will be used routinely to monitor ongoing patient treatment.

The goal is to use this approach to achieve the highest possible quality of care at a given expenditure. Such a goal makes the Institute and New England Medical Center a national resource whose new model for health care delivery will have implications for the way health care is provided every where. Further, this mission will be reflected in our design of new clinical facilities.

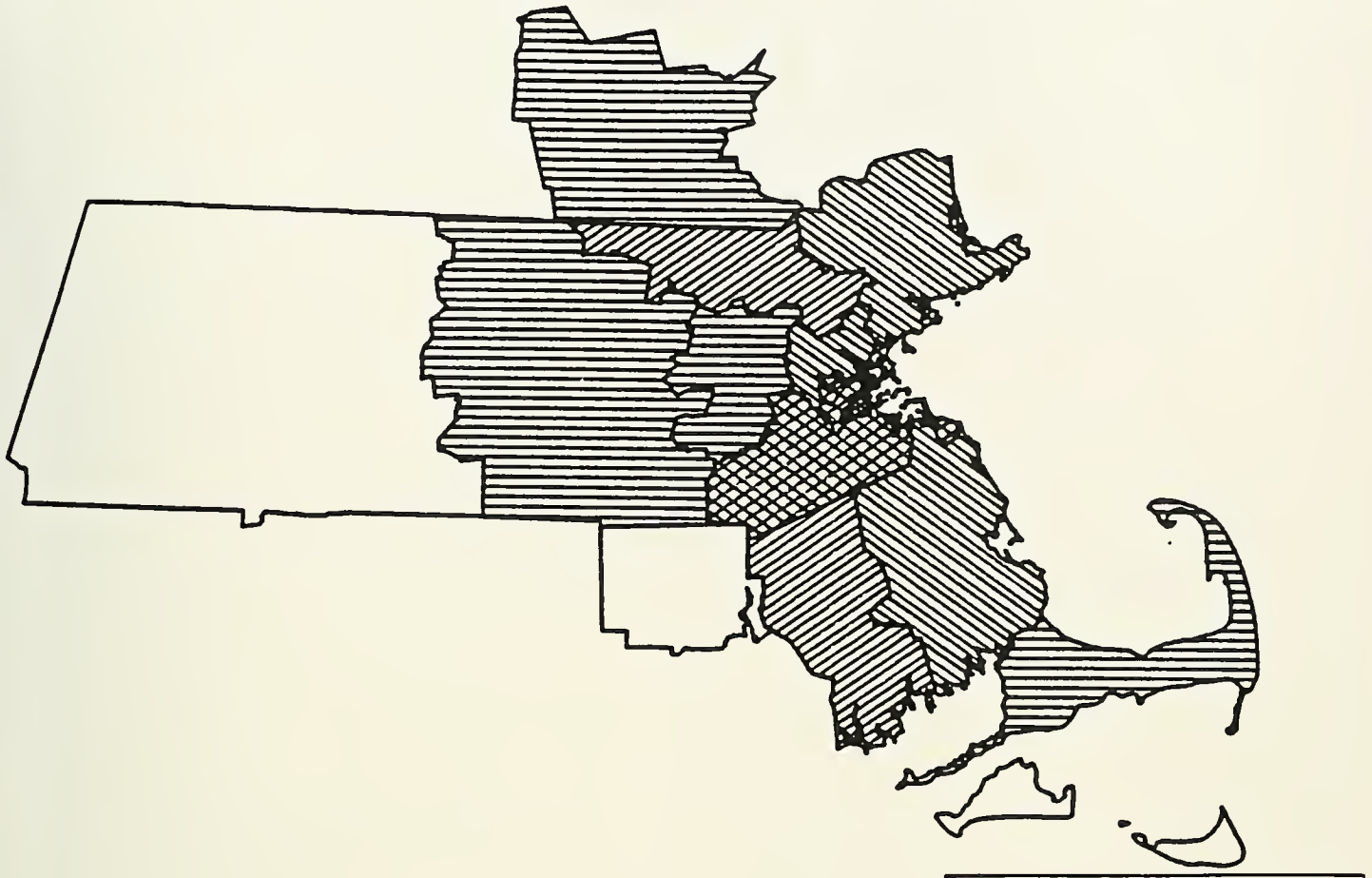
Partnership with City and Community

Key to the success of the master plan has been the spirit of partnership between the City, the community, and the Medical Center. In over eighteen months of meetings, presentations, and working sessions, this partnership has crafted a plan that embodies the community planning objectives of the neighborhood and enhances the Medical Center's position as a world renown leader in the health care field.

The master plan will enable the Medical Center to continue its mission as an institution dedicated to teaching, research, and the provision of health care services to the Boston community and the region. It will also increase the Medical Center's ability to provide health care services targeted to the special needs of Chinatown. In addition, the phased development will generate ample public benefits targeted to Chinatown, such as funds for the creation of affordable housing, job training and english language programs, and open space.

To the City and the region, the new master plan will enhance the economy's health services sector, which currently accounts for 11% of the Boston and regional economies, respectively, and is expected to grow. The areas of health services and medical research have long been generators of quality jobs and investment in Massachusetts, and Boston in particular. A planning study undertaken by the Boston Redevelopment Authority in 1987 and 1988 entitled Survey of Boston's Health Services Economy (Boston's Medical Research Industry) indicate that this trend will continue or increase in the coming decades. Currently, medical research alone accounts for over 6,000 jobs in the city, and employment growth between now and 1992 is expected to average 8% to 9% per year. Projected growth in institutions that include the Chinatown/South Cove area is expected to provide 821 new research jobs over that period. Many of these jobs will be highly skilled professional and technical positions and nearly one-quarter will be support positions. Through the master plan, linkage dollars will help create and enhance programs to ensure that a substantial proportion of the new jobs created in these fields go to Chinatown residents. Other new jobs will also be created by the additions to the facilities for direct health care delivery.

Many new construction and permanent jobs will be created by the projects proposed in the master plan. Assuming construction goes forward as proposed, the estimated construction employment is 200 jobs on average over the life of each phase. In terms of permanent new staff, we apply a ratio based on full-time equivalents per hospital bed and estimate that the proposed projects will create approximately 1500 new clinically-related jobs. The majority of these positions will be created during the earlier phases, since later phases propose mostly replacement services without significant increases in bed capacity. The estimated number of new research jobs is 500.


KEY
Total
Discharges
0 - 200
200 - 500
500 -1000
1000 -1500
1500 -2000
2000 -2700

4. Ten-Year Plan

In the fall of 1988, the New England Medical Center was asked to re-study its master plan and consider a number of land use alternatives. The current plan is the result of our increased understanding of the community's need for housing and community facilities. One of the major land use goals of the new master plan is the consolidation of the Medical Center's facilities. The linking of new and existing inpatient facilities with connecting floors and centralized elevators will make more efficient use of space and will eliminate present difficulties involved in moving patients between facilities. Clinical research will be conducted in dedicated buildings adjacent to inpatient areas. New development will be contained geographically as much as possible. See "NEMC Building Use Plan," Exhibit 25, pg. 53.

1-C Clinical

The master plan envisions four new buildings to be constructed over a period of approximately ten to fifteen years. See "Draft Development Proposal, December 1988," Exhibit 26, pg. 54. The proposed **first phase of development** will consist of two connected buildings along Washington Street north of Oak Street. See "1-C Site," Exhibit 27, pg. 55. The facilities will include approximately 252,000 gross s.f. of new space on a site of approximately 40,000 s.f. (See table below).

1-C Project
Square Feet and Number of Stories by Building

Phase 1	171,025 s.f. 8 stories 120' high (1-C North)
	80,944 s.f. 8 stories 120' high (1-C South)
Phase 2	92,000 s.f. 7 stories
Phase 3	125,000 s.f. 7 stories
Research Building	250,000 s.f. (to be constructed on site of Farnsworth building)
Total s.f. (all phases including Research)	**718,969 s.f.**

The B-Block Buildings will be demolished in order to accomplish phase 2 and 3 of the master plan. As the design process proceeds, decisions will be made concerning which buildings will be demolished during which phase. The Farnsworth building will be the site of the new research building. The square footage for the B-Block Buildings and the Farnsworth building has been subtracted from the total square footage of the project.

B-Block Buildings	253,255 s.f. (See calculation below)
Farnsworth	100,264 s.f.
Subtotal	353,519 s.f.
Net new s.f.	**365,450 s.f.**

B-Block Buildings (Calculation)

Rehab	100,955 s.f.
Center	49,331 s.f.
Dispensary	47,350 s.f.
Jackson	24,504 s.f.
Common	15,039 s.f.
Holmes	16,076 s.f.
Total	**253,255 s.f.**

The projected cost for both 1-C North and South is approximately 150 million; see "Capital Costs for 1-C Project - Phase 1," Exhibit 28, pg. 56. The proposed building uses are as follows:

- The building to the north (closer to the Proger building) will house a new emergency room on the first floor which will be designed to handle major trauma cases. The upper floors of the 1-C North building will house additional medical/surgical beds, intensive care beds, new operating rooms, and research space.

- The second building, 1-C South, will be built along Washington and Oak Street connecting to the 1-C North facility. The 1-C South building will house community-based ambulatory health services on the lower floors, maternity, an inpatient community hospital unit, replacement of outmoded medical/surgical beds, and research space on the upper floors. See "Proposed Building Section Diagram, Exhibit 29, pg. 57. The Medical Center will continue to estimate the number of construction jobs as well as new Medical Center jobs generated by the 1-C North and 1-C South Buildings.

- The **later phases** of development (year 5-10 of the master plan period) will be built on the B-Block site (bordered by Bennet, Ash and Nassau streets and Harrison Avenue). These two proposed new buildings are designed for the replacement of the remaining patient care units that are located in outmoded buildings. These buildings (Pratt, Farnsworth, Center and Rehab) have been modestly upgraded over the past few years, yet the condition of the buildings, the layout of the floors, and the heating, ventilation and air conditioning systems are not adequate for the long term. In turn, the Pratt building will house some of the administrative functions currently located in the B-Block.

- The Farnsworth building site will house a new research building.

There are four major programmatic components of the 1-C plan. They are described in further detail below:

- **Additional Beds and Replacement Beds**

  The 1-C North and South buildings will have a total of approximately 196 beds which include 120 routine medical/surgical beds, 16 ICU beds, 34 maternity beds and 26 community hospital beds. All of the inpatient nursing units will be 20-22 bed units organized around a central nursing station. Due to Department of Public Health regulations regarding the design of nursing units, we are limited in the degree of flexibility we have with the layout of the nursing unit. We are required to meet specific code requirements for inpatient units, and the inpatient nursing unit shown in Exhibit 30, pg. 58 complies with these requirements. Each floor of the North building and most floors of the South building will have connecting corridors to the Proger and Floating buildings. Bypass corridors will also be provided to alleviate traffic through the nursing units.

- **New Emergency Department**

  A new emergency department will be located on the ground floor of the 1-C North building and will be designed to handle major trauma cases as well as the increasing volume of emergency cases, which results in approximately 27,000 - 28,000 cases a year. Because the emergency department will be located along Washington Street, the ambulance traffic along Harrison Avenue will be diverted. The emergency department was designed to be closest to the Proger and Floating buildings because all of the diagnostic, treatment and critical care areas are located in these buildings. Thus, it has excellent access to the main elevator cores. The entrance area to the emergency department will be located directly off Washington Street and will be restricted to parking. Parking will be made available along the street

and most likely some additional parking can be found off Washington Street underneath the Floating. The admitting and discharge center, located directly off the main lobby, is easily accessible from both the emergency department and the main entrance. See "Parcel 1-C - Ground Floor Plan," Exhibit 31, pg. 50.

- **New Operating Rooms**

  New operating rooms and day surgery suites will be constructed on the fifth floor of the North building, adjacent to the existing operating suites in the Floating building. The operating rooms (ORs) will be organized around a central sterile core, which strictly provides sterile supplies to the ORs. The ORs will be designed to allow more frequent changes in air flow etc. The consolidation of the day surgery suites to one area will allow for more efficient use of OR space between inpatient and outpatient operating rooms.

- **Diagnostic and Support Services**

  Along with every inpatient stay and outpatient visit, there are required diagnostic (laboratory and x-ray) workups necessary to treat the patient. Most patients receive a range of tests and procedures during their stay at the hospital and in order to accommodate the additional patients, the 1-C plan also include additional capacity for diagnostic and support services.

In addition to the four main components of the 1-C project, we plan to continually renovate and upgrade our existing buildings in order to maintain state-of-the-art facilities.

Over the years, we have allocated resources to modernize our facilities and we feel this is also an important component of our master plan. Within the first five years of the master plan, we anticipate renovating the Beef & Ale (approximately 10,500 s.f.) located on Tremont Street, to pediatric outpatient clinics. The need for this additional space is directly related to our short-term plans to establish a maternity service within existing facilities. This will require relocation of existing services to the space currently occupied by the Beef & Ale. The plan to establish maternity has received broad-based support from the community.

An ongoing part of the planning of our development projects includes an **evaluation of alternatives.** In terms of the clinical expansion, we have thoroughly reviewed a broad range of alternatives and in fact we have 1-C plans dating back to 1981 with similar square footage needs but typically on a much larger footprint. The most recent 1-C plan is a result of extensive negotiations and compromise with the community and the BRA. Also, as has been stated at numerous meetings, **clinical needs must be based on-campus and all inpatient areas must be interconnected.**

Research

As documented previously, medical research is growing rapidly at the Medical Center. In order to accommodate for this growth, we have explored some options for further expansion. The first option is to create 2-3 floors of research space in the upper floors of the 1-C North and South building for up to a total of approximately 80,000 s.f. See "Parcel 1-C, Typical Research Floor," Exhibit 32, pg. 60. This will only meet an interim need for research space. The longer term solution is to create a minimum of 250,000 additional s.f. of capacity on campus to conduct the type of research that requires immediate access to our clinical and diagnostic equipment (i.e. MRI, CT scans, etc) and access to our patients, who are often involved in these research studies. Further, there are a core of researchers who on a daily basis provide both clinical care and conduct research, and therefore must remain on-campus.

We are, however, exploring some alternative scenarios for research, mainly off-site development of certain types of research. Some of the possibilities for off-site research include South Station, Fort Point Channel, Boston Science Center and Parcel 18. The Medical Center agrees to limit the development of additional research space on-campus in an amount not to exceed 250,000 square feet.

Parking

Section 4 examines our current need for additional parking capacity. We are planning to seek approvals to expand the Herald Street garage in order to meet this need. See "Herald Street Garage," Exhibit 33, pg. 61. Furthermore, we are in the process of retaining a traffic consulting firm to assess the impact of this proposed parking garage expansion and to assess traffic impacts relating to our overall master plan.

Ambulatory Care

The Wilbur project was initiated almost two years ago as one alternative for creating additional ambulatory/outpatient care space. The Medical Center owns and operates the Biewend building, which is a 14 story ambulatory care building located above the Wang Center for the Performing Arts. Adjacent to the Biewend building on Tremont Street is the Wilbur Theater. The Medical Center owns the air rights to the Wilbur Theater and at some point in the future may want to develop those air rights for additional ambulatory care space. See "Wilbur Theater Project," Exhibit 34, pg. 62. NEMC has been working with the BRA and various members of the arts community (including the Institute of Contemporary Art), to coordinate the development of the Wilbur to include a major project that can benefit the cultural arts community and be a centerpiece of the Midtown Cultural District. These discussions are still ongoing.

As suggested by BRA staff, another alternative to the Wilbur project is to consider developing additional ambulatory care capacity across the street on the Hinge Block.

Day Care Center

The Medical Center is proud to report that it is the first academic teaching hospital to provide an on-site day care center. The proposed site of the day care center will be 285 Tremont Street and the opening date is scheduled for

September 1989. See "Day Care Center," Exhibit 35, pg. 63. The day care center will be managed by Bright Horizons, a leading day care management company, and the space will be leased by the hospital from Cornu Management. The day care center will provide a total of 68 slots. By age category, there are 10 infant slots, 18 toddler slots and 40 pre-school slots. The fee to use the day care center is based on a sliding fee scale. Furthermore, the Medical Center is providing a subsidy by covering the annual lease costs and all capital improvements.

The success of the day care project is attributable to the many meetings between the BRA and the hospital. It is consistent with the zoning requirements for any developer to provide space for day care services. Also, the hospital has made an attempt to provide the adjacent Bay Village community with access to its day care facility by allowing 10% of the day care slots to be filled by community residents.

Phasing

The master plan is envisioned as a 10 to 15 year development plan. The first phase will consist of 1-C North and South (the two buildings along Washington Street) and it is contemplated that construction would begin one year after Determination of Need (DoN) approval is received. The timetable for construction is primarily dependent on DoN review. The Department of Public Health, which administers the DoN program, is experiencing significant cutbacks which may result in a two to three year delay of DoN project reviews. Therefore, construction of the first phase could not begin until approximately 1992 or 1993 and completion would be approximately two years hence. We would not implement later phases of the 1-C plan until the earlier phases have proven successful. The later phases would probably not begin until 1-2 years after the previous phase has been completed.

Below is a preliminary timetable for all the projects addressed in this master plan.

Project	Begin Construction	Completion
1-C North	1992-3	1994-5
1-C South	1992-3	1994-5
1-C Phase 2	*	*
1-C Phase 3	*	*
Research	*	*
Herald or other parking garage	1990	1992
Wilbur	*	*
Day Care	1989	1989

*To be determined

See "Phase Plans," Exhibits 36, 37 and 38, pgs. 64-66.

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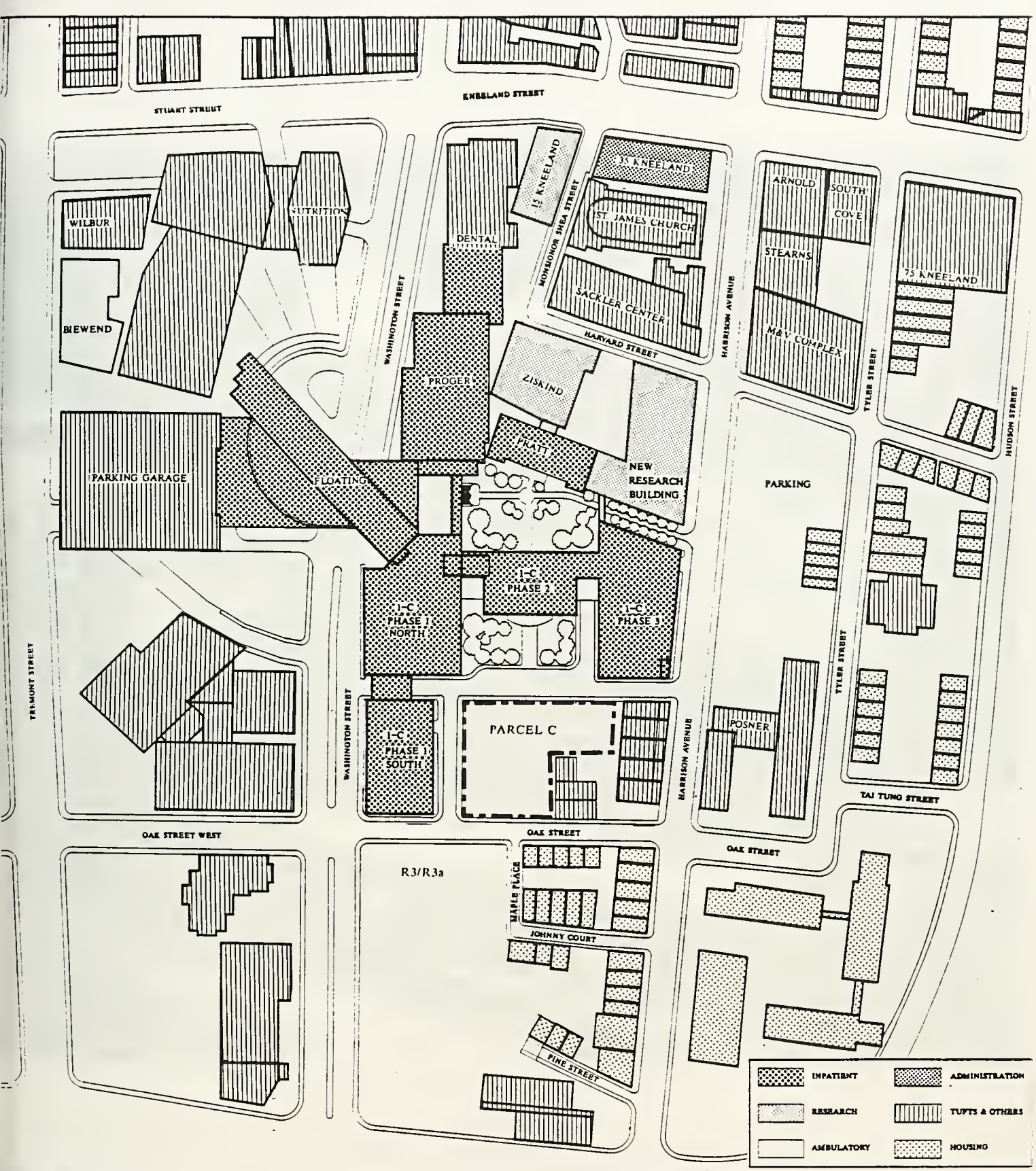
NEW ENGLAND MEDICAL CENTER

MASTERPLAN

NEMC Building Use Plan
December 1988



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NEW ENGLAND MEDICAL CENTER

MASTERPLAN

Draft Development Proposal: December 1988

Photograph ©Sam Sweezy 1989

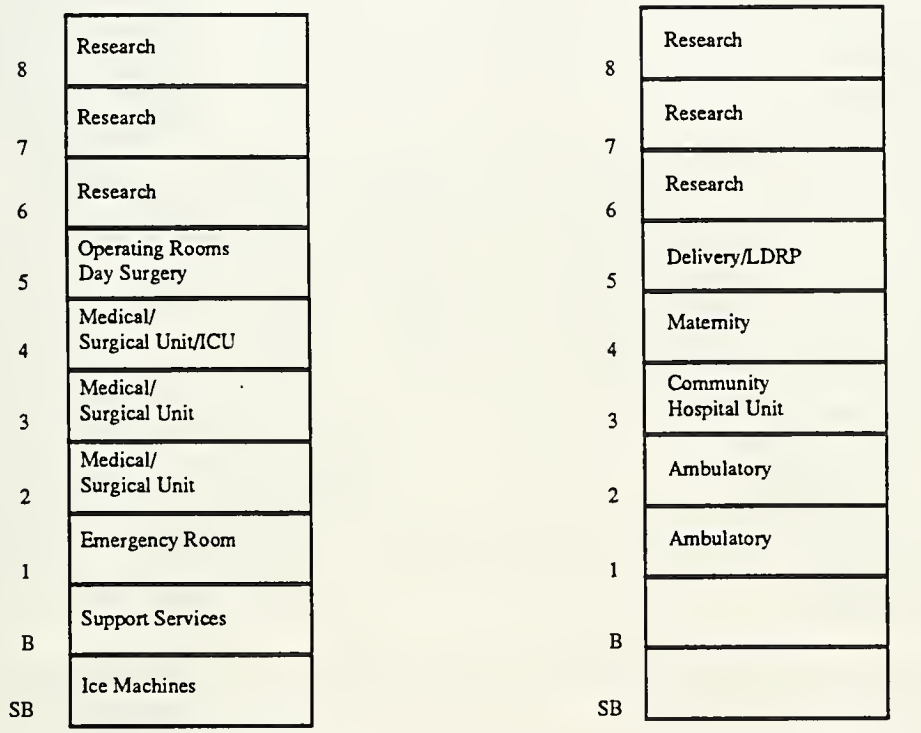
Capital Costs for 1-C Project - Phase 1
(1989 Dollars)

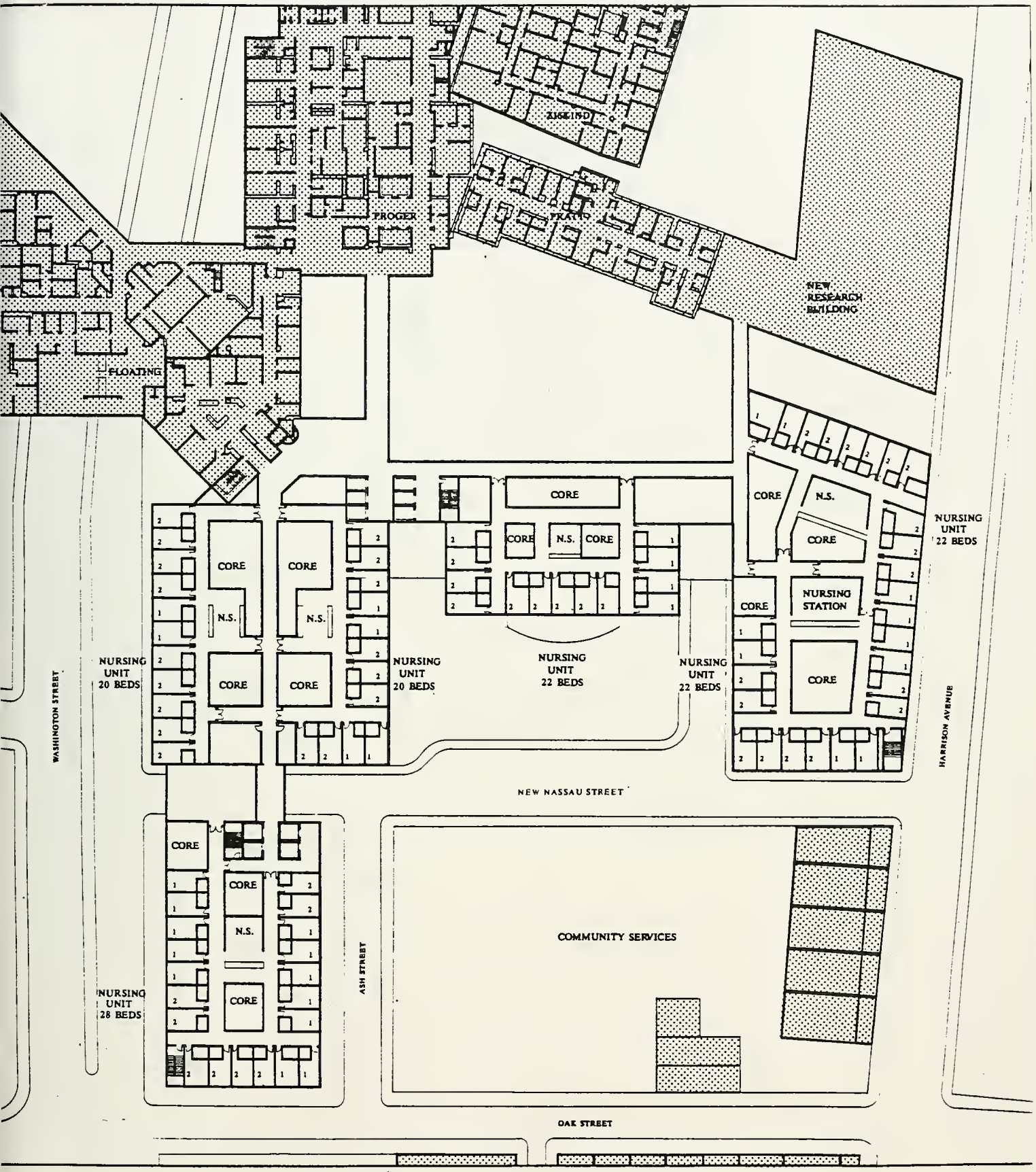
Item	Cost	Assumptions
Land Acquisition		
North Building	3,600,000	18,000 sq. ft. @ $200/sf
South Building	2,400,000	12,000 sq. ft. @ $200/sf
Construction - North Building		
Emergency Room (floor 1)	4,950,000	18,000 sq. ft. @ $275/sf
Inpatient Areas (fl. 2-5)	24,200,000	88,000 sq. ft. @ $275/sf
Inpatient/Flex (fl. 6)	6,600,000	22,000 sq. ft. @ $300/sf
Research/Flex (fl. 7-9)	19,800,000	88,000 sq. ft. @ $300/sf
Support Space (basement)	11,000,000	44,000 sq. ft. @ $250/sf
Construction - South Building		
Community Space (fl. 1)	3,000,000	12,000 sq. ft. @ $250/sf
Ambulatory Care (fl. 2)	3,300,000	12,000 sq. ft. @ $275/sf
Inpatient (fl. 3-5)	9,900,000	36,000 sq. ft. @ $275/sf
Research/Flex (fl. 6-8)	10,800,00	36,000 sq. ft. @ $300/sf
Support Space (basement)	6,000,000	24,000 sq. ft. @ $250/sf
Design/Site/Administration	9,955,000	10% of construction
Equipment	14,932,500	15% of construction
Financing:		
Construction Interest	14,077,193	9% loan, 2 year construction
Bond Issuance Costs	2,949,279	2% of total cost
Total	147,463,972	

Allocation of Total Cost:

North Building	98,580,887
South Building	48,883,085
Research	45,327,951
Patient Care	102,136,021

SERVICES IN PROPOSED 1-C BUILDINGS

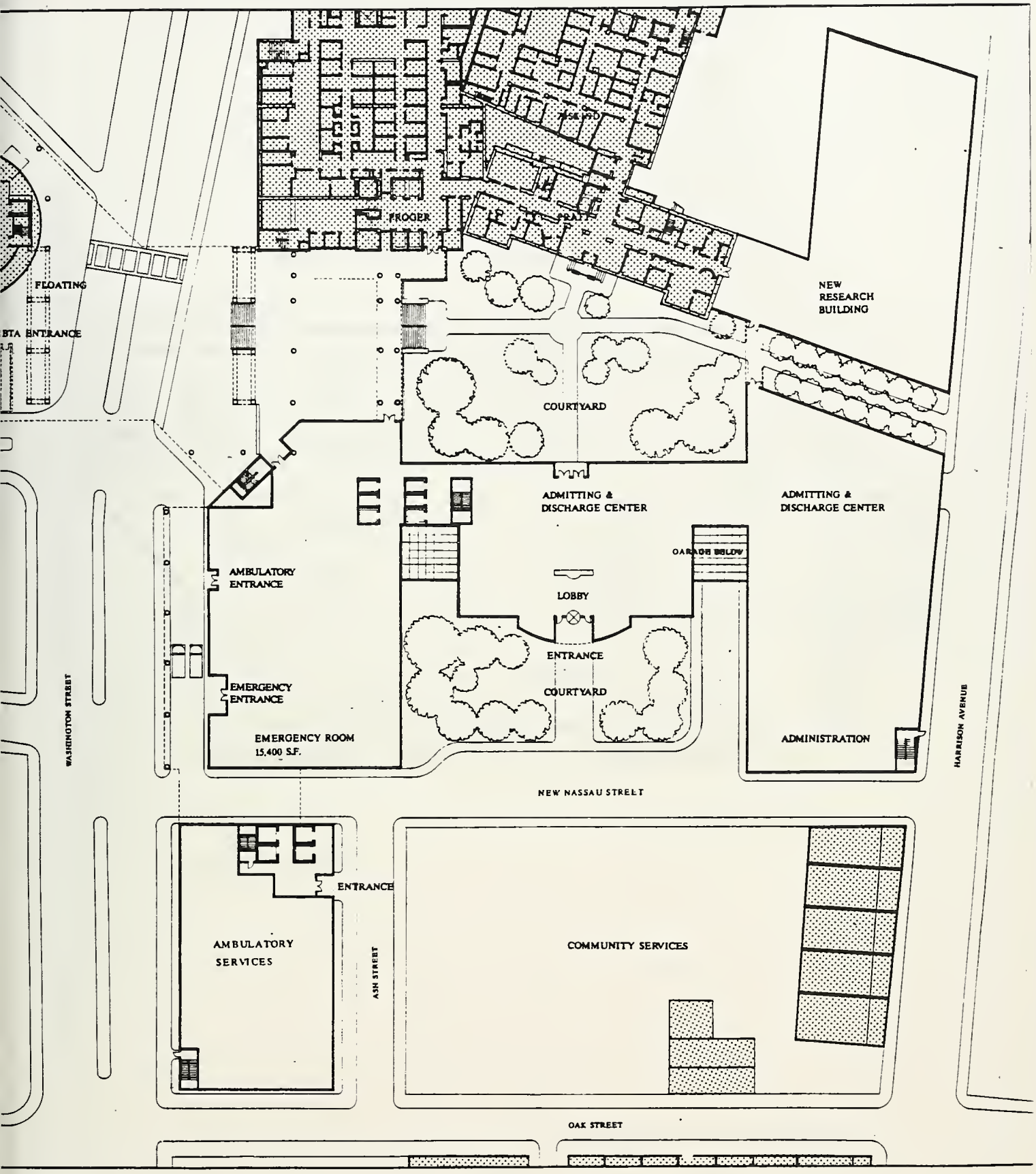




Developed by Tsoi/Kobus & Associates and Andre Wouters & Associates

NEW ENGLAND MEDICAL CENTER MASTERPLAN

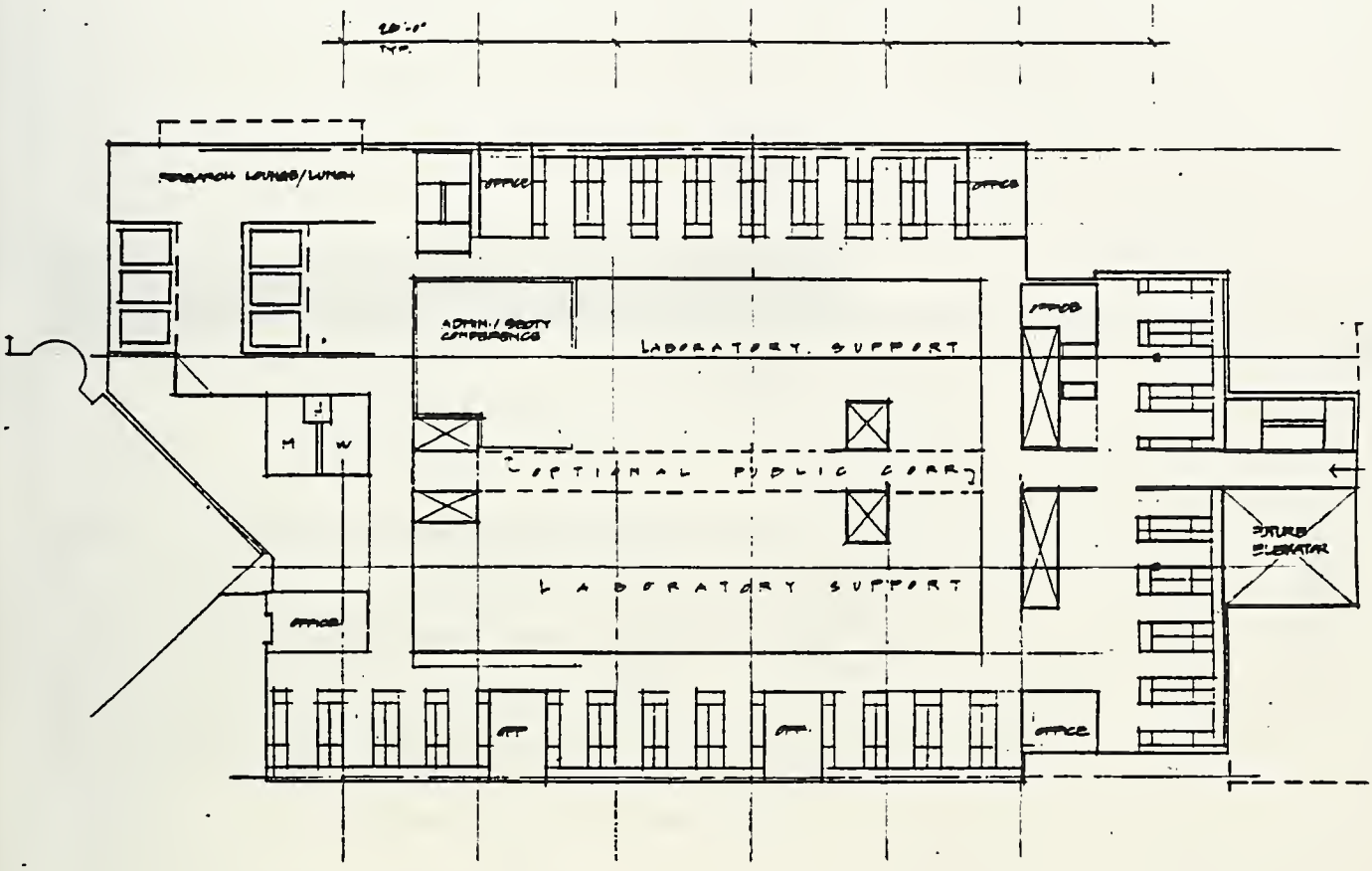
Parcel 1-C
Prototypical Inpatient Floor
December 1988



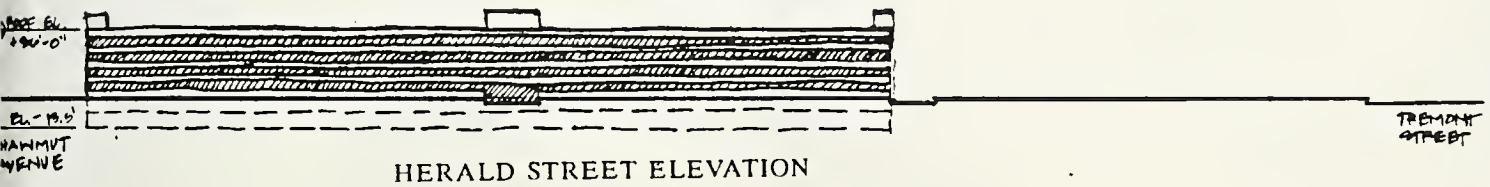
Developed by Tsoi/Kobus & Associates
and Andre Wouters & Associates

NEW ENGLAND MEDICAL CENTER
MASTERPLAN

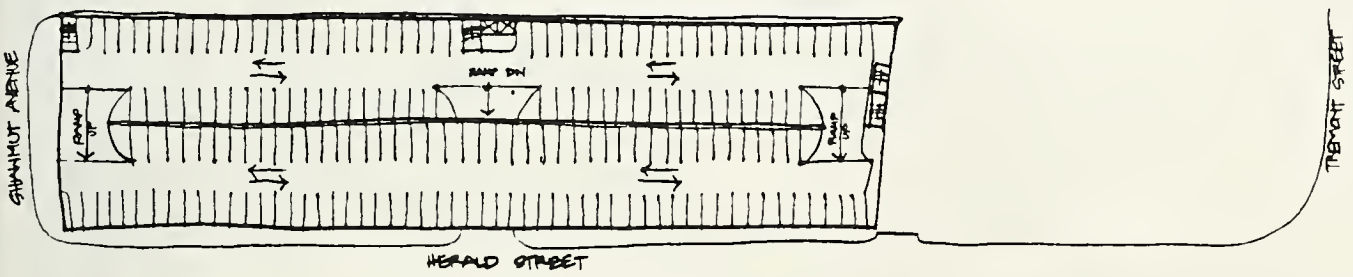
Parcel 1-C
Ground Floor Plan
December 1988



Typical Research Floor

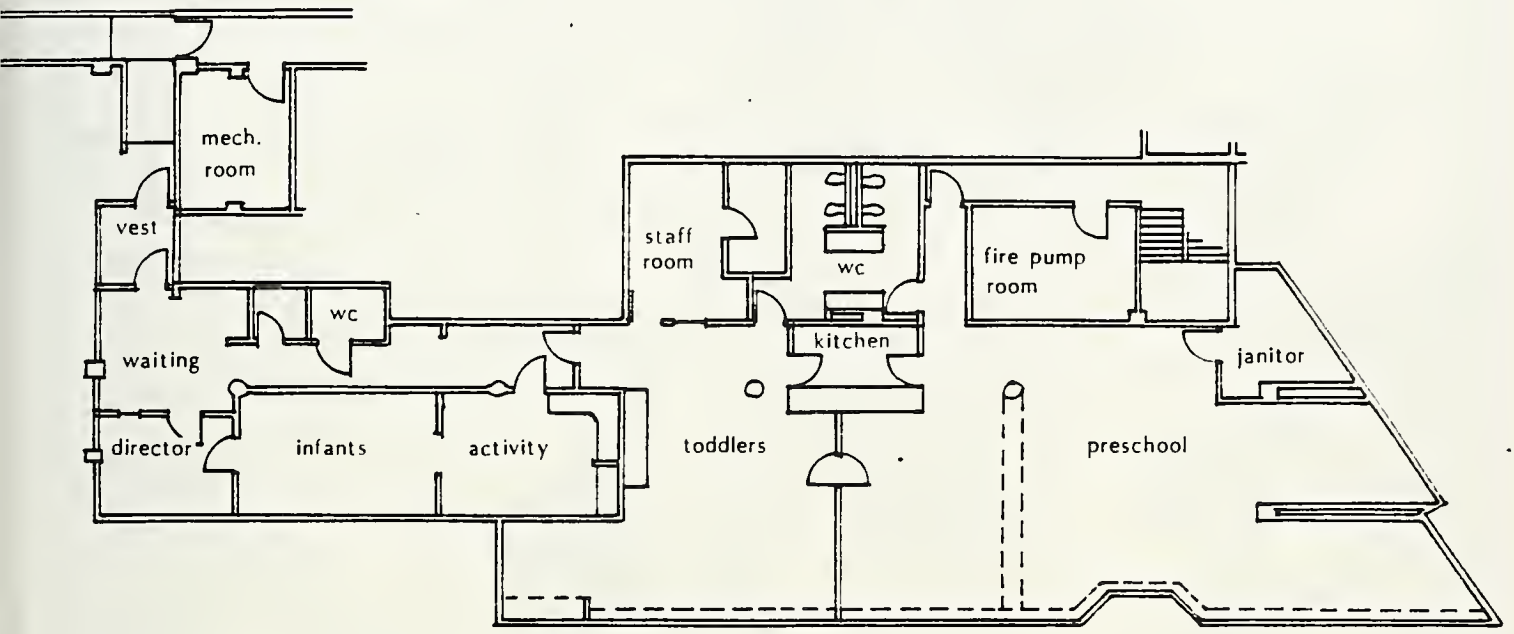


HERALD STREET ELEVATION



FLOOR PLAN AT LOWER LEVELS

NEMCI/WILBUR
DEVELOPMENT
BOSTON, MA
CBT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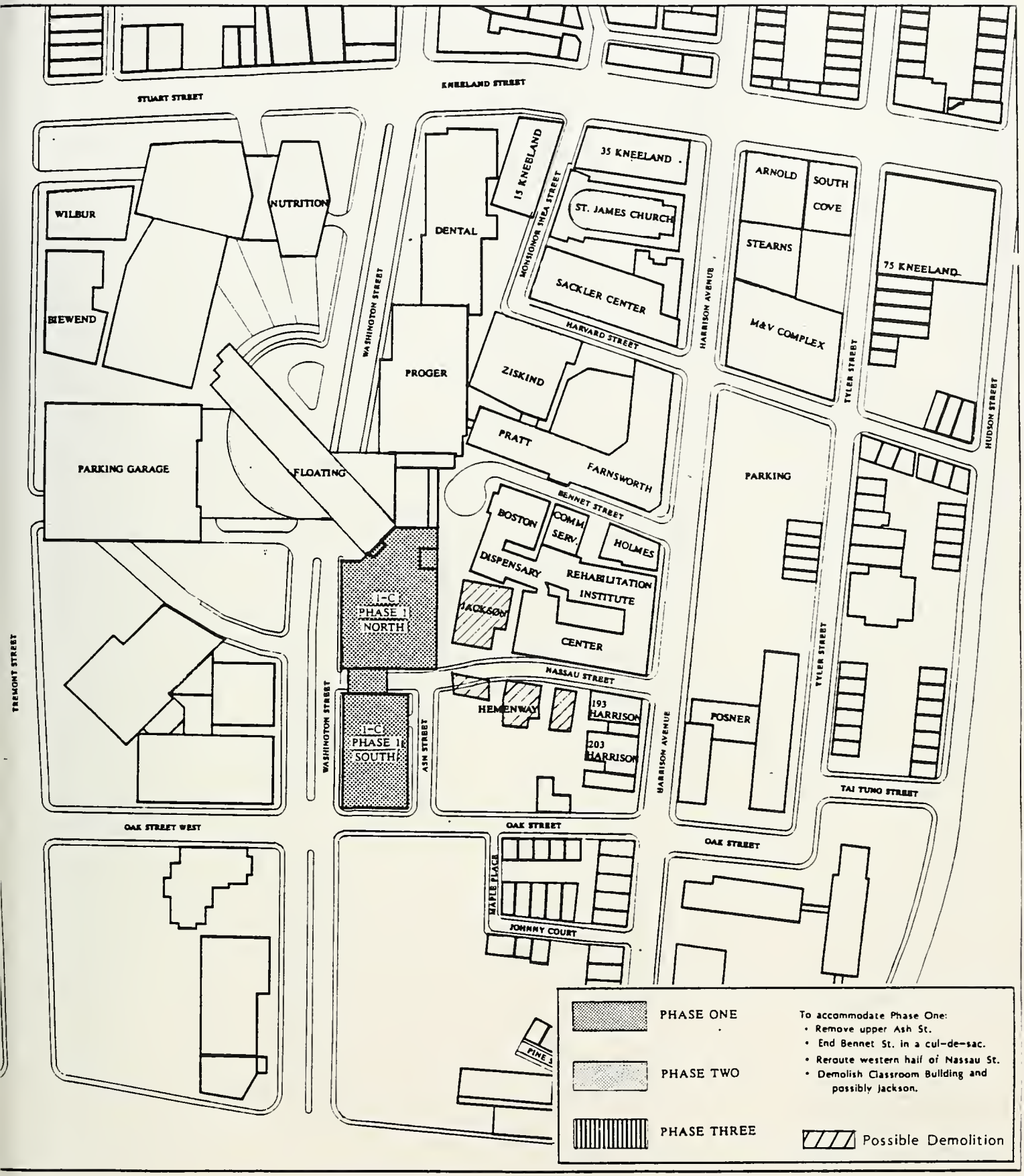

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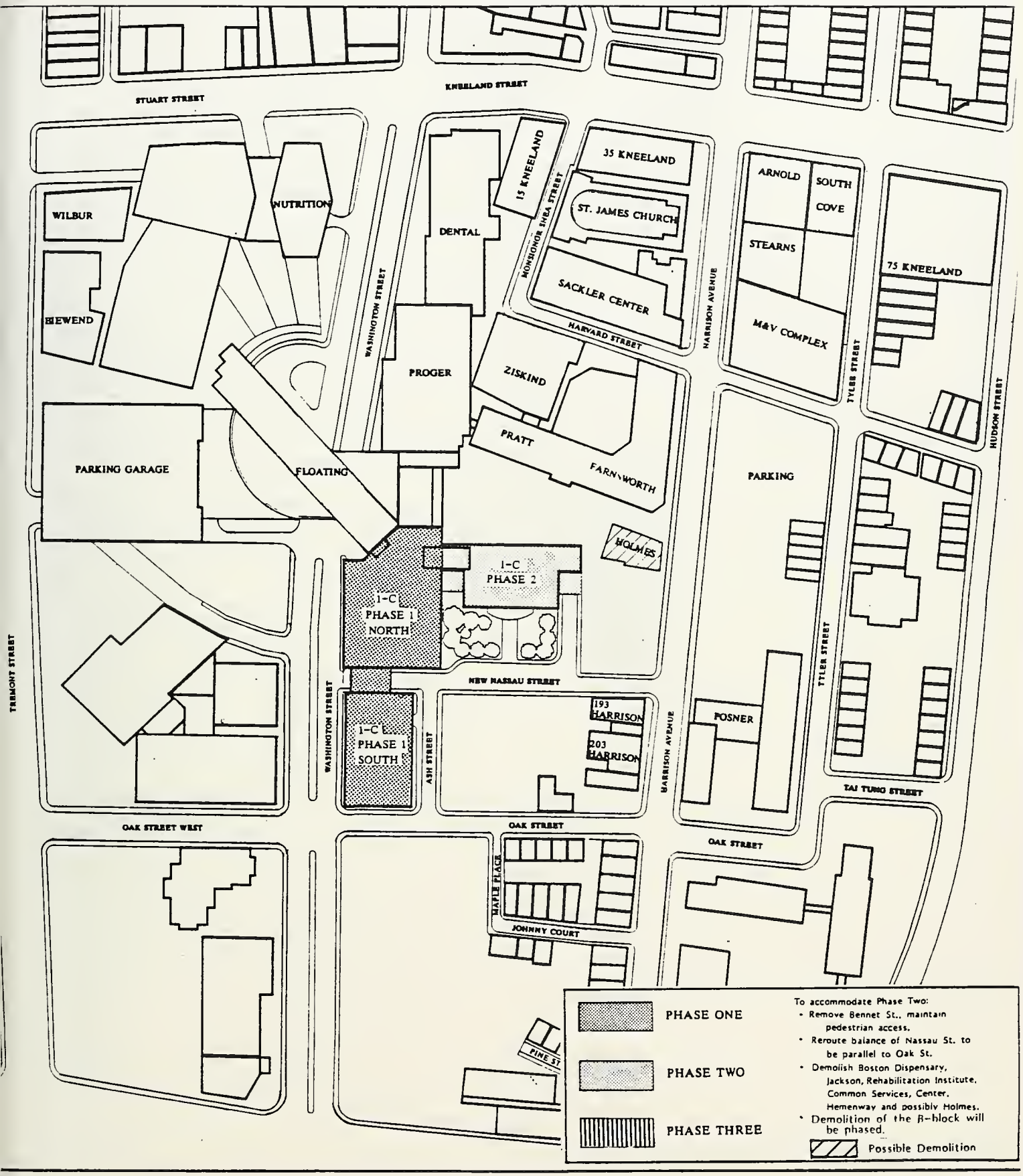
NEW ENGLAND MEDICAL CENTER

MASTERPLAN

Phase Plan:
Phase 1N, 1S

36



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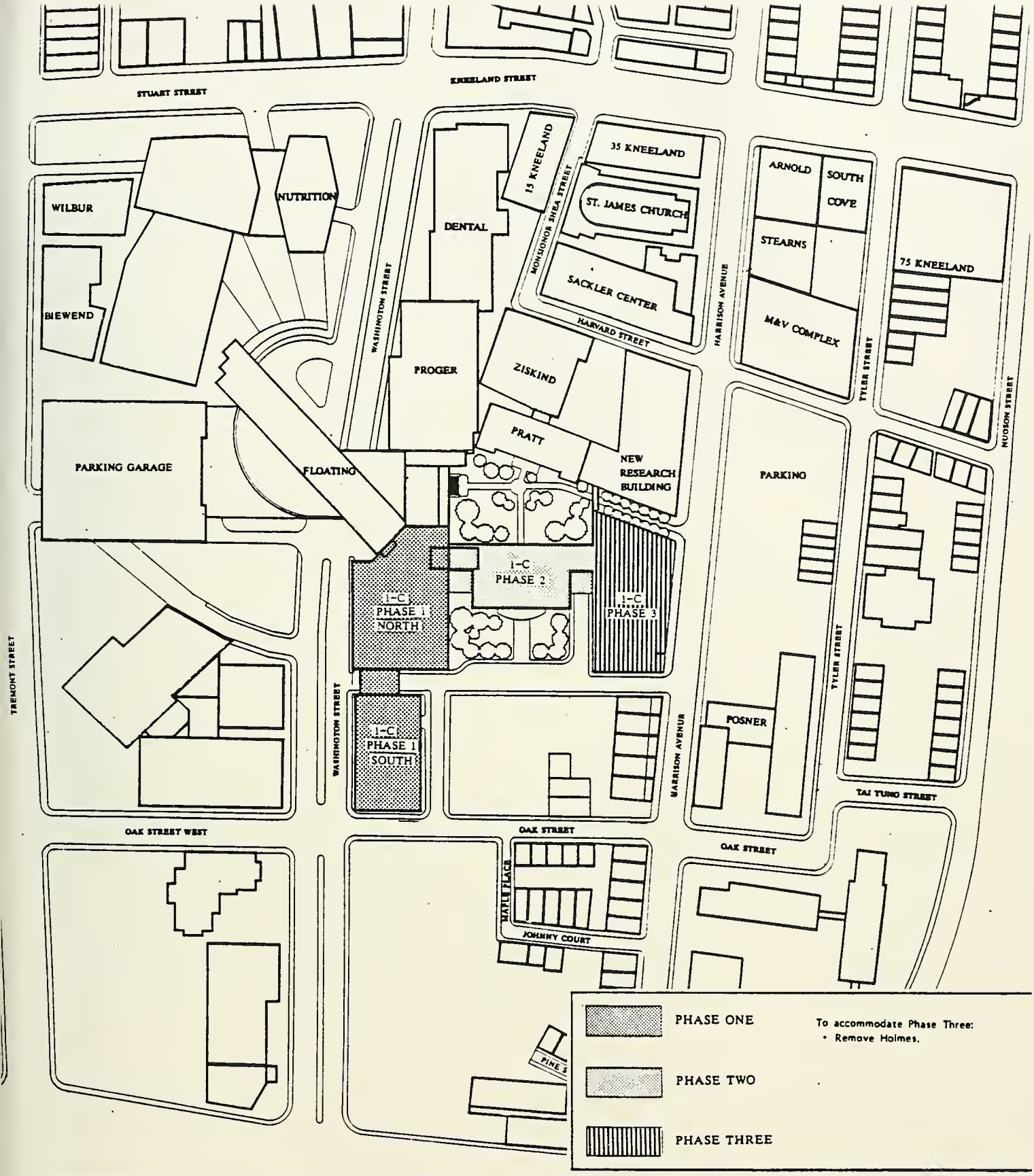
NEW ENGLAND MEDICAL CENTER

MASTERPLAN

Phase Plan:
Phase 1N, 1S & 2

37



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NEW ENGLAND MEDICAL CENTER

MASTERPLAN

Phase Plan: Phase 1N, 1S, 2, 3 & Research

5. Design Guidelines

Coordination with other Master Plans

The Medical Center believes that successful planning is of utmost importance in creating an urban environment that responds to the needs of the varied yet interrelated communities of Chinatown, Midtown, and the Medical Center. To that end, our participation in master planning will not end with the approval of this document; conversely, we will be retaining a firm with expertise in master planning, urban design, and architecture to guide the Medical Center as the specificity of our development proposals evolve.

The issues that are addressed in this chapter will be carefully reviewed and molded as part of an ongoing process of implementing the development proposals contained in the master plan. In addition, the master planning firm and NEMC will work cooperatively with the designers of the community services center on Parcel C to ensure design compatibility.

Specifically, in working closely with BRA design review staff, the Medical Center will thoroughly review and refine pedestrian access routes, will explore alternatives to the current open space proposal, will re-evaluate the location of the proposed ramp abutting the clinical facility proposed as Phase 2, and will refine landscape issues through the design review process. In addition, the Medical Center will explore the development of community-oriented active ground floor use of a health care nature on the ground floor of 1-C Phase 1 South.

It will be the responsibility of the BRA to work to resolve issues relating to the long term use of the MBTA portal. The Medical Center will fully cooperate with the BRA in this effort.

The master plan for the Medical Center has been prepared in close coordination with several other master plans that are being developed concurrently. In 1988, the Boston Redevelopment Authority published the **Midtown Cultural District Plan**. This plan is a far-reaching and ambitious plan to revitalize the existing Theatre District located primarily along Tremont Street as it extends from the Wang Center north as far as the Opera House. The city's plan to revitalize areas which include the former Combat Zone, the mixed uses in such blocks as the Hinge Block, and the commercial development which extends along Washington Street are all vital parts of the future of the Medical Center. The Medical Center enthusiastically endorses the objectives of the Midtown Cultural District Plan.

Furthermore, the Medical Center has two buildings that fall within the boundaries of the Midtown Cultural District. One is the Biewend building, a 14 story building located above the Wang Center for the Performing Arts. This building, renovated in 1983, serves as the Medical Center's primary facility for adult ambulatory care. Adjacent to the Wang Center is the Tremont Street Garage. This facility is the major parking resource for the Medical Center during the day. At night and on weekends the same facility serves as a vital parking resource for many of the theaters on Tremont Street, including the Wang Center, the Shubert

Theater, the Wilbur Theater, and the Charles Playhouse. The Medical Center has also provided over 4100 s.f. of space on the ground floor to the Chinese Culture Institute at no charge.

The Medical Center, as an employer of approximately 4,000 people, is an extremely important neighbor to the Midtown Cultural District. The many restaurants that are included in the Plan are and will become an exciting resource for the employees of the Medical Center as well as Tufts University during the day. These same facilities will become a vital component of the mixed uses at night. Also, in keeping with the goals of the new Midtown Cultural District Plan, the Medical Center is establishing a day care center at 285 Tremont Street. Ten percent of the slots in this day care center have been set aside for members of the community.

At the same time that the Medical Center has worked with the City, we have also worked with **Tufts University**. Tufts is currently preparing its own master plan for the downtown Health Sciences campus. It was during the past working sessions held with Tufts that a solution was ultimately conceived for Parcel C. Parcel C is a one-block area bounded by Nassau Street, Oak Street, Ash Street, and Harrison Avenue. Tufts University and New England Medical Center have agreed to separate their land holdings within this block in order for the Medical Center to assemble Parcel C and in turn, turn this parcel over to the community for the development of a community services center. Further, the mutual objective of the two institutions is to ensure optimal coordination of development plans in terms of design, scale, and use.

In 1988, the Chinatown community embarked on the preparation of its own Community Plan. The Medical Center has been working with the community for many years and has become very familiar with their concern for stabilization of the residential and commercial areas of Chinatown. The **Chinatown Community Plan** is still in the process of being finalized, however, several major priorities have been expressed by the community, and these have become an integral part of the planning by the Medical Center.

Specifically, the Medical Center master plan reflects these priorities by containing institutional development to a smaller footprint than in earlier plans, attempting to meet parking demands by expanding the existing Herald Street garage (which is outside the core of Chinatown), concentrating service vehicles on Monsignor Shea Street and Harvard Street, and creating new open spaces.

Zoning Compliance

The Medical Center has worked in tandem with the Boston Redevelopment Authority to ensure that the height of the proposed buildings, the FAR (floor area ratio), the building uses and the boundaries are consistent with the proposed new zoning regulations for the Chinatown district.

Architectural Compatibility

The Medical Center plans to locate the new buildings on the P-4 and P-4a parcels, and in later phases to redevelop the site known as the B-Block (bounded by Ash, Bennet, and Nassau Streets and Harrison Avenue). The design of these

new buildings as shown in the proposed master plan will be consistent with the general massing and density of those buildings which are already part of the Medical Center campus. The heights of the proposed buildings are intended to be comparable to the height of the Floating Hospital which spans across Washington Street. The new research building proposed along Harrison Avenue between Bennet and Harvard Street would also be approximately 8 stories, allowing it to blend in with the scale of the Sackler Center. See "Site Model Plan View," Exhibit 39, pg. 71.

The new buildings will be primarily situated along Washington Street and along Harrison Avenue. The proposed buildings will form a consistent street edge for both of the streets and echo the design guidelines for maintaining the street definition which has been proposed for the Midtown Cultural District. In contrast to buildings which hug the street edge along Washington Street and Harrison Avenue, the center of the block will create new open space. A new courtyard is proposed where Bennet Street is presently located and another courtyard is proposed along Nassau Street.

The architectural treatment for the new buildings on Parcel 1C and the B Block have not yet been developed. However, the new buildings are intended to blend with the scale and detail of some of the older buildings on campus. As an example, the Pratt Building has a handsome entrance on Bennet Street; see Exhibit 40, pg. 72. The Medical Center plans to preserve this building and refurbish the existing entrance and entrance portico. The new research building, which will adjoin the Pratt Building, will be designed to be compatible with the brick and limestone detailing characteristic of the Pratt facade.

The England Medical Center has done an extensive survey of the condition of all of its buildings, old and new. It remains part of the Medical Center's strategy to upgrade, renovate and revitalize any existing buildings. There are several examples just within the last four years of buildings which have been significantly renovated and given a new lease on life. In 1983, the Biewend Building located above the Wang Center was reconstructed with all new windows, new utility services, and all new partitions to serve as the center for adult ambulatory care. Two buildings have been renovated to house advanced bio-medical research: 15 Kneeland Street, located at the intersection of Kneeland and Monsignor Shea Street has been converted to the Tupper Research Institute and the Ziskind building was renovated in 1987 to also serve as an updated research facility. Another example is 35 Kneeland Street, which was also totally renovated to provide administrative and support spaces for the Medical Center.

A major objective of the new master plan is to unify in both its buildings and its open space, the many separate buildings which are part of New England Medical Center. The campus, having evolved over more than 200 years, is presently a collection of buildings of different styles, different materials, and different sizes. The buildings have gradually filled every available parcel and ultimately have produced a campus where a sunny sitting area during lunch is an all-too-rare occurrence. The proposed master plan strives to correct these present deficiencies of the Medical Center campus. The new buildings will have

a functional unity by being aligned at various floor levels and being interconnected. This will permit easy flow of patients to and from the inpatient areas in the Floating Hospital, the Proger Building, and the new inpatient beds in 1C, and will facilitate movement between operating rooms, diagnostic services, and the emergency room. At the same time, the buildings are arranged in a manner that will increase the amount of light and air and the relationship of all of the buildings to meaningful parcels of landscaped open space.

In addition, the Medical Center is committed to ensuring that environmental concerns are thoroughly addressed and that measures be taken to mitigate impacts relating to wind patterns, shadow lines, existing utilities, etc. An environmental notification form will be filed with the city and the state to initiate any required reviews. Environmental reviews for individual projects will be initiated through the Article 31 process.

Pedestrian Access

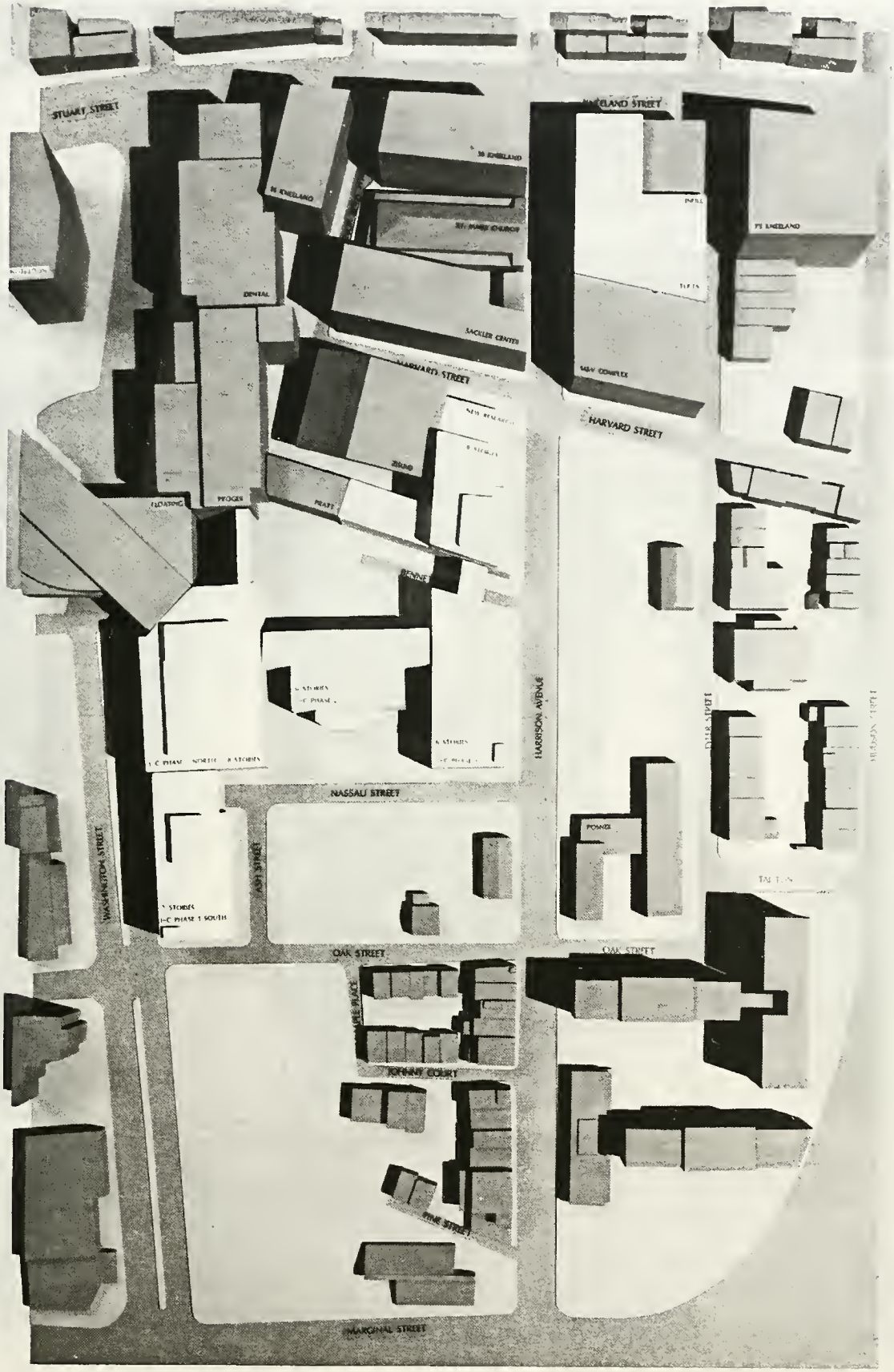
The new master plan creates a number of pedestrian links in both the east-west and north-south direction. See "Pedestrian Circulation Plan," Exhibit 41, pg. 73. Both the staff as well as the community are encouraged to move throughout the campus in several different locations. Bennet Street will be converted from an auto zone to a pedestrian passageway, connecting the area of Harrison Avenue and the T-NEMC parking lot to the Pratt, Proger, and Floating Buildings. This path is also a connecting link for the community to get to the new MBTA station on Washington Street. Another important new pedestrian link will be the new extended Nassau Street. Nassau Street will be realigned to be parallel with Oak Street. Along Nassau Street will be a new courtyard which gets good southern exposure. The courtyard will be in close proximity to the proposed community services center on parcel C, which should greatly enhance the block along the north side of Nassau Street.

In addition to the major east-west links, there are several north-south pedestrian paths which the Medical Center has incorporated into their plans. One existing pedestrian way will be along Washington Street, extending from the new housing to be located at R3/R3A to the Chinatown commercial district. The Medical Center has already sponsored improvements on Washington Street with the plantings along the median strip and the development of the park between the Floating Hospital and the Nutrition building. A second major pedestrian thoroughfare will be along Harrison Avenue.

Historic Preservation

Chinatown is a neighborhood of historic and cultural significance to the City of Boston and the region. This historic value is emphasized in the Chinatown Community Plan, which calls for in-depth study of structures of potential historic significance, and also the designation of Chinatown as a historical district.

The Medical Center recognizes this important community concern, and has incorporated sensitivity to historic resources in this master plan. All development will be designed to be compatible with surrounding structures, including those with identified historic value. The phased development program will not require the demolition or alteration of signficant historic structures.



Photograph©Sam Sweezy 1989

NEW ENGLAND MEDICAL CENTER
MASTERPLAN

Site Model
Plan View

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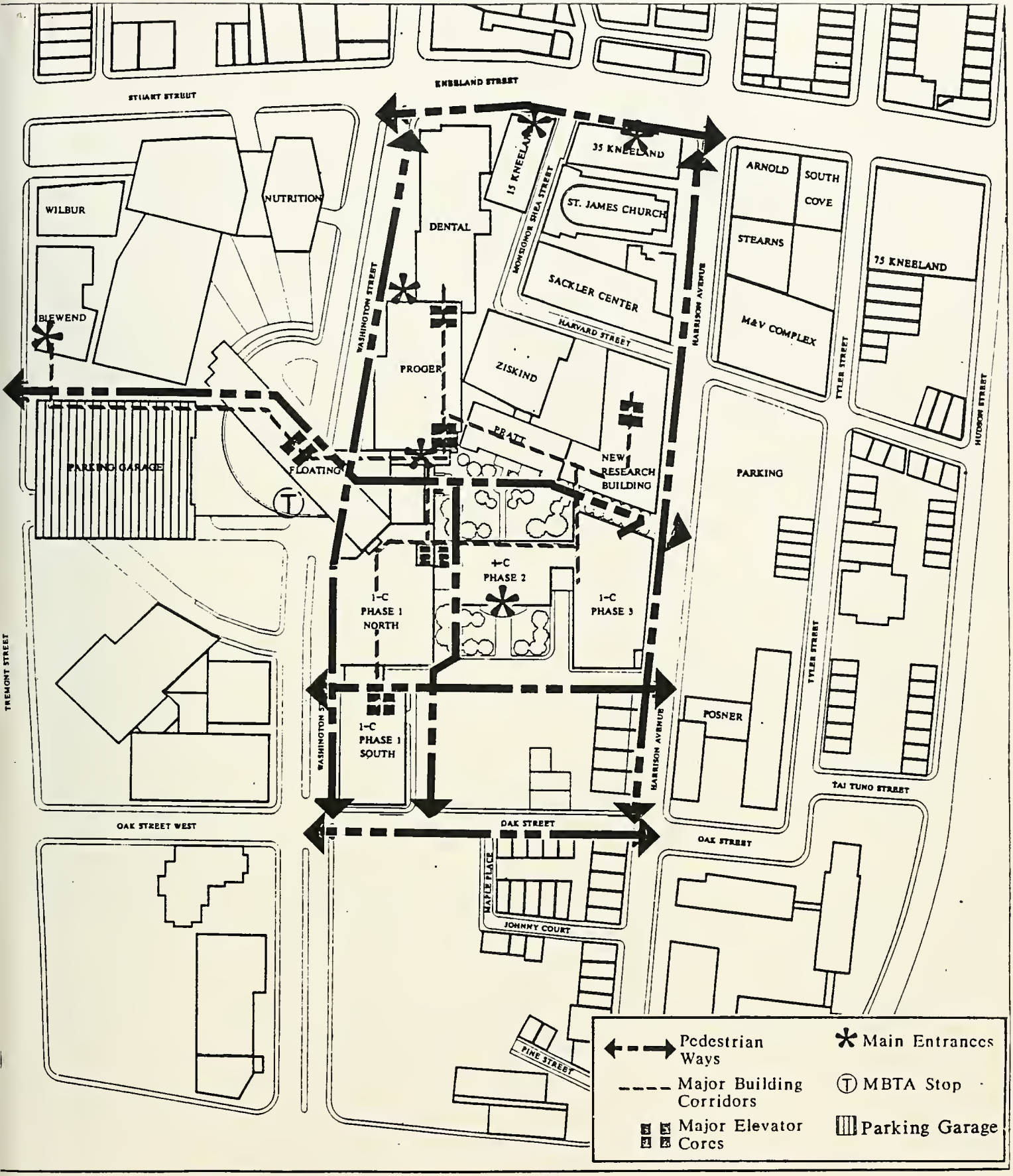

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NEW ENGLAND MEDICAL CENTER MASTERPLAN

Pedestrian Circulation Plan
December 1988

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6. Transportation and Parking

Overview

The Medical Center recognizes the importance of managing transportation and parking in and around Chinatown. For this reason, we have selected a traffic consulting firm to develop transportation access plans for the Medical Center and the Chinatown area. Furthermore, we are pleased that the housing development teams for R3/R3A will participate in the transportation study. The scope of the study has been developed in conjunction with the BRA, the City's Transportation Department and the community. Issues that will be evaluated by the traffic consulting firm include the impact of the Herald Street garage project, traffic flow issues including the impact of relocating the emergency room and impacts relating to the establishment of a maternity service.

A major component of the transportation study will be to evaluate the impact of the proposed expansion of the Herald Street Garage. The plan is to expand the Herald Street garage from 400 to 1000 spaces. This, however, **will result in only about 300 net new spaces**, due to the elimination of surface lots on Washington Street and Parcel C and the termination of short term leased parking.

By using the Herald Street site for parking expansion, the Medical Center will be able to satisfy its parking needs with minimal disruption to the surrounding Chinatown community. Most incoming and outgoing traffic will use Marginal Road and Herald Street, two non-residential streets which already function as main traffic arteries. With the relocation of the Central Artery, these two streets will also provide direct access to South Boston and other areas, reducing the number of people who use Chinatown streets to reach Medical Center parking.

When the study is completed (by the Fall of 1989), it will become an integral part of this master plan. In the meantime, however, below is some general information on parking supply, demand estimates, and mitigation measures. Also see "Traffic and Parking Plan," Exhibit 42, pg. 78.

Parking Need

Over the last few years, the Medical Center has experienced a definite need for additional parking facilities due primarily to the increase in ambulatory visits and inpatient admissions. Several studies addressing the parking problem at NEMC have been conducted over the past few years. The studies include a supply and demand assessment as well as long term options for parking and mitigation. The majority of the parking spaces are owned by the T-NEMC corporation and the Medical Center is concerned over its lack of control over the continued use of parking facilities. The chart below summarizes the parking supply and respective ownership.

Facility	Spaces	Ownership		
		T-NEMC	BRA	Others
Tremont Street Garage	930	930	--	--
Harrison Avenue Lot	193	158	35	--
Oak Street Lot	72	59	13	--
Washington Street Lot	60	--	60	--
Herald Street Garage	400	--	--	400
Shopper's Garage	150	--	--	150
Total	1805	1147	108	550

The above analysis shows that the Medical Center has control of approximately 64% of its parking spaces. The remaining 36% of the parking spaces are owned by others and leased to the Medical Center for short-term leases (1-2 year). The following chart shows the future plans of the parking facilities:

Facility	# of Spaces	Future Plans
Tremont Street Garage	930	Will continue in operation
Harrison Avenue Lot	193	Site needed for Tufts development
Oak Street Lot	72	Site needed for NEMC 1-C facility
Washington Street Lot	60	Site needed for NEMC 1-C facility
Herald Street Garage	400	Short-term lease; poor condition
Shopper's Garage	150	Short-term lease; lease may be discontinued
Total parking spaces (Off-street)	1,805	

One goal of this master plan is to address the need for the Medical Center to have more long-term certainty over parking supply and in effect to have greater control and ownership of these spaces.

A recent study performed internally by the Medical Center shows the present parking supply is 1805 spaces. The future supply for spaces is projected to be 2140 due to plans currently underway to renovate the Herald Street Garage. The other parking facilities, Harrison Avenue Lot, Oak Street lot, Washington Street spaces and Shopper's Garage will be eliminated from use.

As mentioned, to address this shortage, the Medical Center proposes the replacement of its 400 car Herald Street Garage, which is in poor repair, with an 1000 car garage on the same site. The new garage will be owned and financed by the current site owner, Ronald Druker, and will be leased on a long-term basis to the Medical Center. The additional spaces will meet most of the projected parking shortage outlined above. The remaining shortage will be addressed through continuing transportation management efforts as described in the following section.

Traffic management efforts at the Medical Center fall into two categories: demand management and traffic flow management. Demand management: The Medical Center has undertaken several steps to encourage people to use public transportation or car pools as an alternative to private automobiles. These include:

- Sale of MBTA monthly passes at the Medical Center cashier's office. Approximately 330 passes are sold monthly.

- Presentations by Caravan for Commuters, Inc., a vanpooling organization which has attempted to generate interest in a formal ridesharing program at the Medical Center.

- Identification of employees who could conveniently take public transportation to work but instead choose to drive. Such employees can be denied monthly parking passes.

These efforts have led to limited success to date for a variety of reasons:

- Many daytime employees begin their shift at 7:00 am, which is too early to allow use of some forms of mass transit such as commuter rail. Employees on the 3-11 shift, meanwhile are hindered by the lack of mass transit services after 11 pm.

- Many hospital staff members also work at other health facilities, some of which are inaccessible to public transportation. These employees need access to a private automobile during the day.

- Arrival and departure times vary widely among hospital employees, making carpooling difficult.

- A number of patients are unable to travel by public transportation and must use a private automobile.

For these and other reasons, the proportion of Medical Center employees and visitors using private cars will always be higher than at most downtown businesses.

Traffic flow management: Throughout the planning process, efforts have been made to direct traffic away from residential streets (Oak Street and Harrison avenue especially) and towards major non-residential thoroughfares (Herald Street, Marginal Road, Washington Street). Thus, the increase in parking spaces will take place on Herald Street, and traffic will be directed to Washington Street, the location of both the main entrance and the proposed emergency entrance. In particular, relocation of the emergency entrance from Harrison Avenue should reduce ambulance traffic through Chinatown - since Washington Street is two-way, ambulances will no longer need to travel through Chinatown. An alternative to the proposed Herald Street garage project is to construct a parking garage of similar size on a different nearby parcel.

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NEW ENGLAND MEDICAL CENTER MASTERPLAN

Traffic and Parking Plan
December 1988

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7. Community Benefits

This page will be replaced with the final community benefits package as endorsed by the Subcommittee on NEMC Community Benefits and the Chinatown/South Cove Neighborhood Council.

3/29/90

NEW ENGLAND MEDICAL CENTER

Master Plan

1990-2000

COMMUNITY BENEFITS

Final Version March 1990

COMMUNITY BENEFITS
March, 1990

I. HOUSING LINKAGE

A. The development of the Master Plan of New England Medical Center Hospitals, Inc. (the "Hospital") will generate housing linkage funds in accordance with the following formula. The commitment of such funds shall be finalized through a Development Impact Project Plan (DIPP) Agreement. Such dollar amount shall represent a contribution of Five Dollars ($5.00) for each square foot of gross floor area in excess of one hundred thousand (100,000) square feet, excluding any surface, enclosed, or underground parking, as set forth in Section 26A-3, 2(a) of Article 26A of the Boston Zoning Code (the "Code").

B. The Hospital agrees to accelerate payment of its housing linkage funds for the Master Plan according to the following process:

1. 20% of the contribution, discounted at its then present value from the date of receipt of all necessary permits and approvals, including the issuance of a building permit for the entire project and closing of financing, shall be paid commensurate with the submission of a Housing Creation Proposal, which will be so submitted upon the earlier date of receipt of an approved Determination of Need from the Department of Public Health, if applicable, or written approval of final architectural plans and specifications from the division of hospital facilities at the Department of Public Health, or upon completion of the Article 31 review process, including final resolution of any judicial appeals. The exact amount of such payment shall be determined by the appropriate parties. Payment shall be automatic, and shall not be affected by any failure of the Hospital to obtain financing or to complete the project; provided, however, that such payment shall be credited against any future required housing linkage funds, job contribution grant funds, or any other future community benefits negotiated with respect to future development projects, inflated by an interest factor equal to the present value, until such time as the present payment is credited against a future payment.

2. 80% of the contribution, equal to the net present value of seven (7) annual payments, will be paid as housing creation funds upon the issuance of a building permit for the entire project.

3. "Net present value" wherever used in this document shall have the meaning set forth under the Definitions section of the 1986 Housing Creation Regulations promulgated pursuant to Articles 26 and 26A of the Code, as amended.

II. JOBS LINKAGE

A. The development of the Hospital's Master Plan will generate job contribution grant funds in accordance with the following formula. The commitment of such funds shall be formalized through a DIPP Agreement. Such dollar amount shall represent a contribution of One Dollar ($1.00) for each square foot of gross floor area in excess of one hundred thousand (100,000) square feet, excluding any surface, enclosed, or underground parking, as set forth in Section 26B-3, 1(a) of the Code.

B. In the utilization of its job contribution grant funds, the Hospital shall elect the Jobs Creation Option and shall work with the Mayor's Office of Jobs and Community Services to expand English as a Second Language ("ESL") programs and job training programs for Chinatown residents.

III. MASTER PLAN LINKAGE

With regard to the calculation of linkage funds to be generated through the implementation of its Master Plan, the Hospital agrees that only one 100,000 square foot exemption will be permitted for all future development as defined by the Master Plan, the square footage of all future development to exclude any surface, enclosed, or underground parking, as defined by the Master Plan; provided, however, that the amounts of such linkage payments to be generated for each development project shall be based on the applicable housing linkage and job contribution grant funds formulas set forth in Articles 26A and 26B of the Code in effect at the time of such future development projects. Further, in the event that linkage funds are rescinded in their entirety, the Hospital agrees to contribute housing linkage funds of $2.00 per square foot and job contribution grant funds of $1.00 per square foot for the development projects proposed in the Master Plan.

IV. JOB TRAINING INITIATIVES

A. In addition to job contribution grant funds requirements, the Hospital will establish a voluntary fund of $156,600 for a range of job training initiatives over a three-year period beginning in 1991.The payment schedule for such funds will be as follows: $60,000 in Year 1; $63,600 in Year 2 and; $33,000 in Year 3. Each such payment shall be made to appropriate community based job training agencies as of the first day of the respective year to which it relates. In collaboration with the Chinatown Occupational Training Center (the "COTC"), or other appropriate community-based job training agencies, this job training fund will be used to expand existing programs in the areas of job readiness and job training for entry-level positions, ESL, and secretarial training, and to establish new programs to develop a career ladder to train individuals for more technically-advanced positions. After three years, this formula will be repeated until such time as job contribution grant funds have begun.

B. The Hospital will work collaboratively with community agencies to evaluate the effectiveness of existing job training programs. The Hospital will gather data on the number of Asians in its employ, the number of graduates from job training programs established in collaboration with the COTC, the names of institutions where job training graduates have been placed, and the number of graduates placed at each institution. Utilizing this information, the Hospital will work cooperatively with the community to evaluate needs and to propose mutually advantageous resolutions. The short and long term goal shall be the reasonable employment of increasing numbers of Asians on a permanent, full-time basis at the Hospital.

C. The Hospital will continue to collaborate with the COTC to develop specialized job training programs to prepare Chinatown residents for Hospital and medical-related employment.

D. The Hospital will continue to participate in "Boston Works", and will work with community residents and the Mayor's Office of Jobs and Community Services to increase participation by Chinatown residents.

E. The Hospital will continue to participate in the "Boston Summer Jobs Program" providing employment and training for neighborhood youths.

V. AFFIRMATIVE ACTION

A. A working committee of representatives from the Chinatown/South Cove Neighborhood Council (the "CNC") and other appropriate community representatives will be established to collaborate with the Human Resources Department of the Hospital in an on-going affirmative hiring program and to monitor results. The Hospital will strengthen its efforts to recruit Asian employees, particularly in management and professional areas. The Hospital will appoint a liaison to work with the CNC and community in this matter. If requested, the Hospital will increase its efforts in actively recruiting Chinatown youths from YES, South Cove YMCA, and the Boys and Girls Clubs for such employment.

B. The Hospital will provide either on-site or off-site employment centers for affirmative action purposes. Prior to and during construction, kiosks and bulletin boards will be used to inform the public of available employment opportunities. Following construction, notice of available job opportunities will be posted at a job posting center to be located on-site, consistent with current City of Boston employment policies.

C. The Hospital will comply with any and all state and municipal laws, regulations, executive orders and/or ordinances relating to affirmative action.

VI. PURCHASING AND CONTRACTING PROGRAM

The Hospital will work with the CNC and other appropriate community representatives to develop a "purchasing and contracting" program with minority-owned and local small business enterprises, while still preserving its role as a prudent buyer of goods and services. Specifically, the Hospital will: designate an individual within the institution to coordinate this effort; work with city and community-based agencies to identify and maintain a listing of minority-owned businesses; and establish program goals designed to assist minority-owned businesses in competing with other suppliers. In addition, the Hospital will comply with any and all state and municipal laws, regulations, executive orders and/or ordinances relating to such purchasing and contracting programs.

VII. TECHNICAL ASSISTANCE TO COMMUNITY REGARDING FUNDRAISING FOR ECONOMIC DEVELOPMENT

The Hospital will provide technical assistance from its Development Office to community representatives to offer information and guidance on implementing a fundraising campaign to spur economic development activities.

VIII. MULTI-LINGUAL INTERPRETER SERVICES

Multi-lingual interpreter services, with Chinese and Vietnamese speaking interpreters, will continue to be available at the Hospital on a 24-hour a day basis. Further, the Hospital will work with community groups to resolve any difficulties with the current program and ensure that interpreter services meet the needs of Chinatown residents.

IX. SOUTH COVE COMMUNITY HEALTH CENTER

A. The Hospital will continue to provide funding to support the South Cove Community Health Center, in the amount of $180,000 annually through the term of the Master Plan, unless adjustments are mutually agreed to by the Hospital and CNC.

B. The Community Hospital Program, which is part of the Master Plan, will be designed to provide admitting privileges to designated physicians at the South Cove Community Health Center in accordance with the Hospital's Medical Staff By-laws. A collaborative working relationship between the Hospital and the South Cove Community Health Center will be established to foster mutual cooperation and assistance with regard to the provision of quality health care and clinical programming for the Chinatown community, with particular emphasis on the Community Hospital Program.

X. THE CHINESE CULTURE INSTITUTE

The Chinese Culture Institute (the "CCI") presently leases over 4,100 square feet of ground level space in the Tremont Street Garage for $1.00 per year. At the expiration of the term of the existing lease, the Hospital agrees to extend the term of the lease through the period of the Master Plan to December 31, 1999 at the same rate of rent. The Hospital agrees to discuss in good faith with CCI the possibility of also extending the term of the lease beyond 1999.

XI. PARCEL C - COMMUNITY SERVICES CENTER

In response to the community's and city's land use and community development objectives for the Chinatown community, the Hospital agrees to the following with respect to the development of a community services center on the so-called Parcel C located between May Place, Ash Street, Nassau Street and Oak Street.

A. The Hospital will reasonably work in good faith to foster a positive working relationship with those agencies that may be located on Parcel C;

B. The Hospital will work with the community, and those involved in the development of Parcel C as well as Parcels A and B, as they are defined in the Master Plan, to explore options for collaboration on the development of underground parking.

C. Survey plans for Parcel C obtained by the Hospital will be made available to representatives of the community in their development of a community services center.

XII. OPEN SPACE

A. Through the Master Plan approval process, the Hospital will develop, with the BRA and CNC, a comprehensive open space proposal which will include exploring the possibility and appropriateness of altering building locations to create a single, large open space, with increased accessibility to the Chinatown community. In addition, other alternatives for open space planning will be analyzed with the goal of further enhancing the green space characteristics and quality of the surrounding area.

B. The Hospital will beautify its campus area through reasonable maintenance of the park in the center divider on lower Washington Street and other on-campus green spaces. Also, the Hospital will install reasonable lighting improvements in this specific geographic area to increase public safety. As a component of the open space planning for the Hospital Master Plan, the potential for other planting and green spaces will also be explored.

C. With the goal of ensuring compatibility with the Chinatown Community Plan, final determination regarding open space planning contemplated in the Master Plan will be made through the Article 31 review process.

XIII. PEDESTRIAN ACCESS

The Hospital will develop pedestrian walkways to encourage pedestrian movement through the campus both from east to west and north to south, to integrate its campus with the surrounding community. To provide such pedestrian access, ground floor access between buildings will be minimized to the extent feasible, to eliminate physical barriers for pedestrians. Final determination and decisions regarding such pedestrian access system shall be made collaboratively among the CNC, the BRA, and the Hospital through the Master Plan approval process and the Article 31 review process and shall take into account the security and patient needs of the Hospital, the structural integrity of existing buildings, financial feasibility, and the requirements of other agencies with jurisdiction over such matters.

XIV. ARCHITECTURE/URBAN DESIGN

A. The Hospital will design all buildings to blend with the architectural features and context of its Chinatown neighborhood. Building materials will be selected to be of the utmost quality and compatibility with other structures in the area. In addition, the Hospital will provide detailed documentation of the compatibility of proposed new structures with the surrounding Chinatown Community and its character.

B. The Hospital will explore creative means to preserve the architectural identity of its historic core.

C. With the goal of ensuring compatibility with the Chinatown Community Plan, final determination regarding architectural and urban design issues for the buildings contemplated in the Master Plan will be made through the Article 31 review process.

XV. TRANSPORTATION/TRAFFIC

A. The Hospital shall fund a joint transportation study in cooperation with the developers of Parcels A, B, and C to assess fully the future traffic impacts of Chinatown growth, including that of the Hospital.

B. Through the completion of the transportation study, all appropriate means will be explored to resolve the parking, traffic and circulation needs of the institutional campus. In so doing, the Hospital may request that Nassau Street be realigned, with the understanding that the Hospital shall preserve an adequate land area, which shall be substantially similar to the current land area contemplated for the development of a community service center on Parcel C as defined by the BRA, and for the establishment of adequate pedestrian access and open space amenities in this area of the Hospital campus. No such realignment of Nassau Street shall occur without the consent of the appropriate parties.

XVI. MONITORING

In order to monitor adequately the implementation of the aforementioned community benefits, the Hospital shall provide, every six months, a written report and update on their status. In addition, the BRA shall provide a report or update at commensurate intervals. Both such updates shall be reviewed by the CNC. In addition, the Hospital agrees to discuss in good faith the possibility of additional monitoring provisions at a later date.